

SPECIAL TRUCK EQUIPMENT NUMBER

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COMMERCIAL CAR JOURNAL

and OPERATION & MAINTENANCE

APRIL 1930

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DODGE TRUCKS

Choose a Dodge Truck safely on the basis of its proved dependability alone — its ability to keep on running, keep on making schedules, keep on earning. Look to owners for proof of this dependability. Look to operating records, to speedometer readings, to any Dodge Truck that has seen hard service. Back your findings with your investment dollars. Your profits will be greater.



THEY'VE EARNED THE RIGHT TO CARRY THE IMPORTANT NAMES IN INDUSTRY

This is the day of Brockway-Indiana Trucks! Nationally known manufacturers and distributors of the necessities and luxuries of life are acquiring them—10, 20, 50 or more at a clip. State highway departments are standardizing on them—one state just bought 104, the largest single truck order ever placed. In recent months the Brockway-Indiana gain in fleet sales has broken all records in the truck industry.

To do this Brockway-Indians have had to pass the rigid requirements of the country's most exacting buyers. They had to prove *plus* power, speed, stamina and operating economy, and show a dollar-for-dollar superior value. They've done more—they've matched the most unusual haulage requirements, only because of the Brockway-Indiana policy of flexible standardization which secures for any industry or individual the mechanical and economic advantages of unit part construction *fitted to special needs and practices*.

Here are truck values so unusual that no organization or person who buys or sells trucks should fail to get all the facts. Visit one of the nearby branches or distributors, or write Eastern Division, Brockway Motor Truck Corporation, Cortland, N. Y.; Western Division, Indiana Truck Corporation, Marion, Indiana; Executive Office, 420 Lexington Avenue, New York City; General Offices, Cortland, New York.

This organization is one of the three largest exclusive truck manufacturers, with the finest engineering staff ever devoted to motor transportation. 21 years in this business and in it to stay!

The most attractive values on the market today and a manufacturing program which, through controlled continuity of design, insures minimum obsolescence in Brockway-Indiana Trucks.

Sales and service through 350 centers in America and 135 in 85 foreign countries. Unusual convenience!

Handsome trucks for every need! Fours, sixes, four-wheelers and six-wheelers from one to ten tons. Priced from \$995 to \$9750, f.o.b. factories.

A few desirable franchises are still open at home and abroad. Write or wire!

BROCKWAY-INDIANA TRUCKS



By producing the greatest commercial car value in its history . . . a stronger, sturdier, more powerful line of six-cylinder trucks . . . Chevrolet has again won the endorsement of American business.



Every factor that makes a commercial car desirable has been refined and improved in these new trucks. At three places in the 4-speed transmission are Hyatt Quiet Roller Bearings . . . assuring smooth operation, perfect alignment of shafts and gears, and long life for the entire assembly. This reliance upon Hyatt to preserve and protect the excellence of products of which they become a part is a tribute to Hyatt design and dependable performance.

HYATT ROLLER BEARING COMPANY

Newark Detroit Chicago Pittsburgh Oakland

HYATT
QUIET ROLLER BEARINGS
 PROTECTING QUALITY PRODUCTS

for *greater*
driver ability... less driver
responsibility



Bendix 4 Mechanical Brakes
Bendix Hydraulic Brakes
Bendix B-K Vacuum Booster Brakes
Bendix Power Compressor
Bendix-Westinghouse Air and Vacuum
Brake Amplifier.

Rapid delivery of merchandise ... safe transportation of passengers ... depends on both men and mechanism.

Transport executives first pick men carefully ... then standardize on trucks and buses equipped with Bendix Brakes.

For Bendix Brakes relieve the driver of both mental and bodily strain. They operate easily, stop trucks and buses quickly, retain their adjustments and, being completely enclosed, are absolutely dependable in any weather.

BENDIX BRAKE COMPANY, SOUTH BEND, INDIANA
(Division of Bendix Aviation Corporation)

**BENDIX 4
BRAKES**

COMMERCIAL CAR JOURNAL

and OPERATION & MAINTENANCE

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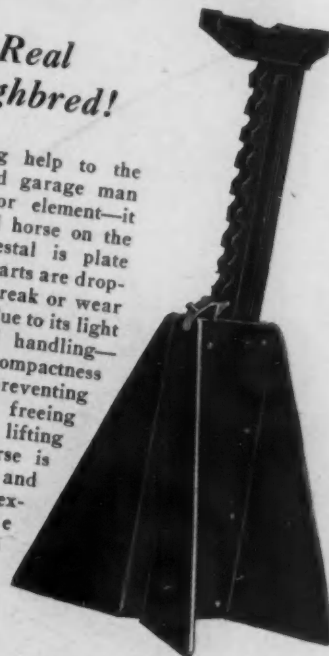
MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

The Commercial Car Journal
and Operation & Maintenance

The Hi-Lo Horse

Is a Real
Thoroughbred!

This high-stepping help to the service station and garage man contains no inferior element—it is the only all-steel horse on the market. The pedestal is plate steel and all other parts are drop-forged—it will not break or wear out. It saves time, due to its light weight and ease of handling—saves space by its compactness and saves money by preventing costly accidents and freeing expensive jacks for lifting jobs. The Hi-Lo Horse is economical in price and there is no upkeep expense. Models range from 9½ to 41½ inches in height.



PEDERSEN Oiljak

An Irresistible Force
for Uplift

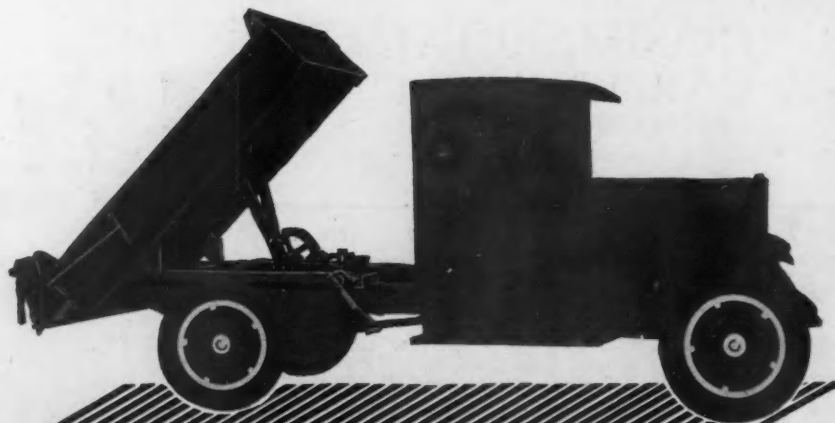


This powerful hydraulic jack lifts the heaviest load easily, quickly and safely—and will hold that load for 24 hours without appreciable drop. The Pedersen OILJAK is built to stand up under the severest service conditions—it will lighten your loads for years! It is unbreakable, having a one-piece body, with ram and cylinder of special steel. Made in a variety of sizes and capacities to meet every automotive need.

Send for literature and complete information covering these jacks and horses.

THE OIL JACK CO., INC.
AMPERE - - - NEW JERSEY

April, 1930



DUMP BODIES

THAT LAST AS LONG AS THE TRUCK

YOU'LL find it good business to concentrate on Hughes-Keenan. The demand for them is consistent—increasing daily. No other dump body makes the chassis you handle as saleable a dump truck.

Hughes-Keenan Bodies are as tough as an ore boat—as solidly built. The dumping mechanism is as sturdy. Hard use can't hurt it . . . nor abuse. And such features as tail gates being arranged for spreading back up the statement: "Hughes-Keenan are designed by men who know what dump truck users have to contend with on the job."

Made in 1 and 1½ yard sizes in power, gravity and hand hoist types. They're easily mounted—with minimum labor, and give low loading height, good rear dumping clearance and high dumping angle. Mail coupon for full particulars. Know the profit in them—see how readily they sell and you'll be 100% Hughes-Keenan for Dodge, International, G.M.C., Reo, Ford, Chevrolet and other trucks.

THE
HUGHES-KEENAN COMPANY
MANSFIELD, OHIO

HUGHES

Steel Dump Bodies

KEENAN

The Hughes-Keenan Company, Mansfield, Ohio
Please send your free illustrated dump body
folders checked.

Ford ☐ Chevrolet ☐ Other Trucks ☐

Name

Address

City State

30,000

miles per set of spark plugs



ABOVE: Several buses of the North Shore Bus Co., Inc. in front of the loading platform of the new \$2,000,000 public bus terminal at Flushing, Long Island. The North Shore Bus Co. is the principal operator using the terminal.

All Robert Bosch Pyro-Action Spark Plugs bear the full name "ROBERT BOSCH" and this trademark of Robert Bosch A.G.



Different engine conditions... different service conditions... require different types of spark plugs. From the complete line of Robert Bosch Plugs, your service station will help you select the correct plugs for your own buses.

THE North Shore Bus Company operates a fleet of 80 buses on Long Island, N. Y. "We have tested several makes of plugs," writes Mr. Max Dach, Superintendent of Maintenance, "and have found that the Robert Bosch Pyro-Action Plugs are best for our service. They give us on an average of better than 30,000 miles per set."

If you are not getting such results, one of two things must be wrong. Either you are not using the right make of plug. Or you are not using the right type... Or both.

Such experiences as that of the North Shore Bus Company, the Erie Railways with an average of 27,735 miles, the Rollo Transit Company averaging 50,000 to 60,000 miles, establish beyond dispute that Robert Bosch Plugs are the right plugs for bus service. And so... to end your spark plug troubles... to slice your spark plug costs... you merely have to select the correct type of Robert Bosch Plug for your buses.

Your Robert Bosch Service Station will

gladly help you. It will study your requirements. From the comprehensive line of Robert Bosch Pyro Action Plugs, a few of which are shown below, it will make recommendations... determined by the type of engine used and the conditions under which your bus operates. It will submit to you a set of plugs for test purposes. No obligation, naturally.

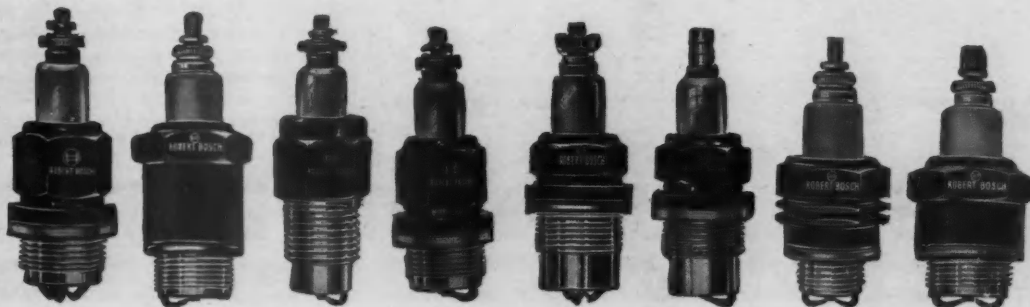
Or write direct for full information and name of nearest Robert Bosch Service Station.

ROBERT BOSCH MAGNETO CO., INC.
36031 Queens Blvd., Long Island City, N. Y.

Robert Bosch

Pyro-Action

Spark Plugs



A Statement backed by more than Five Years' Use of Air Springs

*5 Years
ago*

ESTABLISHED 1889



MONARCH STORAGE CO.

OFFICE 3870-72 LANCASTER AVE.

PHILADELPHIA

MEMBER
NATIONAL FURNITURE WAREHOUSEMEN'S ASSOC.
PENNSYLVANIA WAREHOUSEMEN'S ASSOC.

TWO WAREHOUSES
MOTOR VAN EQUIPMENT

October 1, 1925

The Cleveland Pneumatic Tool Co.,
Cleveland, Ohio.

Gentlemen:

Please book our order for one Heavy Duty Grass
Air Spring to be placed on our #4 van, also one Transport
model of Grass Air Spring to be placed on our #2 van.

You will no doubt be pleased to receive these
repeat orders.

Having used these Springs on our other vans, we
believe them to be very satisfactory, and to our minds,
economic in the long run by saving wear and tear on motors,
van bodies and tires, and also eliminates the heavy strain
on the chauffeurs' arms on long distant runs, which we deem
very essential in making careful deliveries of our customers'
furniture.

We wish to express our opinion that these springs,
in our minds, eliminate a great deal of expense in running
trucks, and also helps to give comfort to our men in long
distant runs.

We beg to remain

Yours respectfully,
MONARCH STORAGE COMPANY

Chas. G. DeLong
(signed) CHARLES G. DE LONG

Mgr.

CCD/L/M

Today

ESTABLISHED 1889



MONARCH STORAGE CO.

OFFICE 3870-72 LANCASTER AVE.

PHILADELPHIA

MEMBER
NATIONAL FURNITURE WAREHOUSEMEN'S ASSOC.
PENNSYLVANIA WAREHOUSEMEN'S ASSOC.

TWO WAREHOUSES
MOTOR VAN EQUIPMENT

February 20, 1930

The Cleveland Pneumatic Tool Co.,
Cleveland, Ohio.

Gentlemen:

Replying to your inquiry of the 18th instant,
relative to the service rendered by the Grass Air Springs,
we are pleased to say that they have been giving entire
satisfaction.

We have been one of the early users of these
Springs and from time to time have equipped our vans,
until now they have been adopted as standard equipment
with our company.

By experience we have learned that they save
the engine as well as reduce to a minimum the vibration
in the van, which eliminates marks and scratches, particular-
ly on long distance removals.

We, therefore, take pleasure in recommending
the use of Grass Air Springs to any company in our line,
whose reputation depends on safe delivery of fine furniture.

Yours respectfully,

MONARCH STORAGE COMPANY

Chas. G. DeLong
Chas. G. DeLong, Mgr.

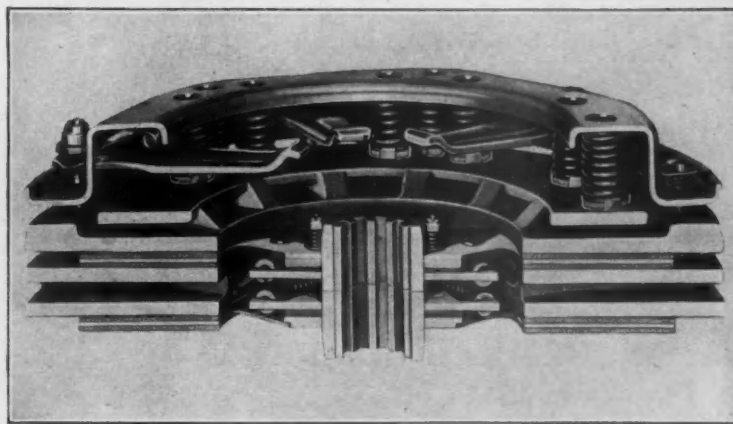
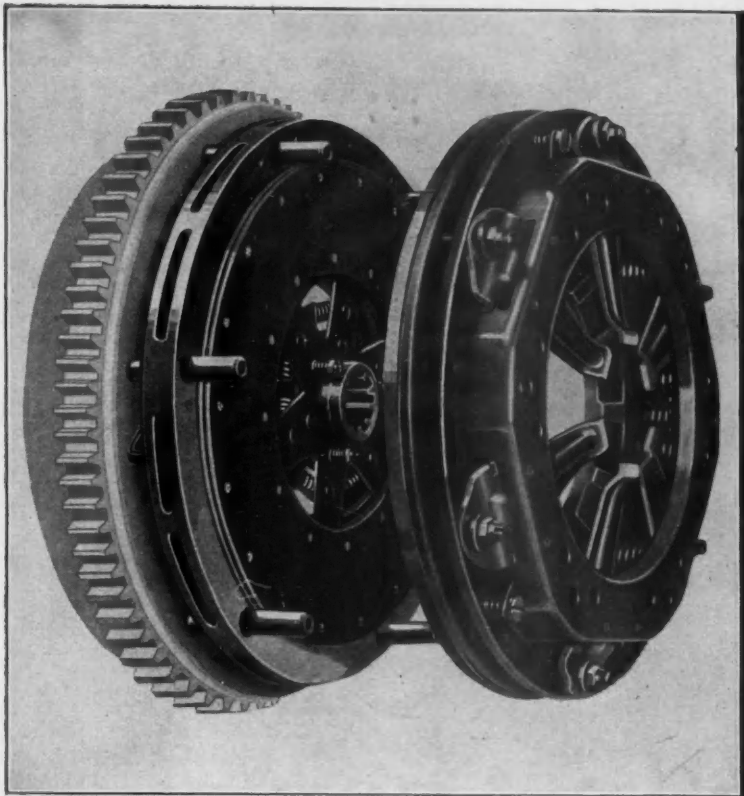


CLECO AUTOMOTIVE PRODUCTS

MANUFACTURED BY THE CLEVELAND PNEUMATIC TOOL CO., CLEVELAND, OHIO

April, 1930

The Commercial Car Journal
and Operation & Maintenance



LONG

**AUTOMOTIVE
CLUTCHES**



**AUTOMOTIVE
RADIATORS**

**A
NEW
HEAVY
DUTY
DESIGN**

**FOR
BUSES
TRUCKS
AND
TRACTORS**

**LONG MANUFACTURING
COMPANY
DETROIT, MICHIGAN**

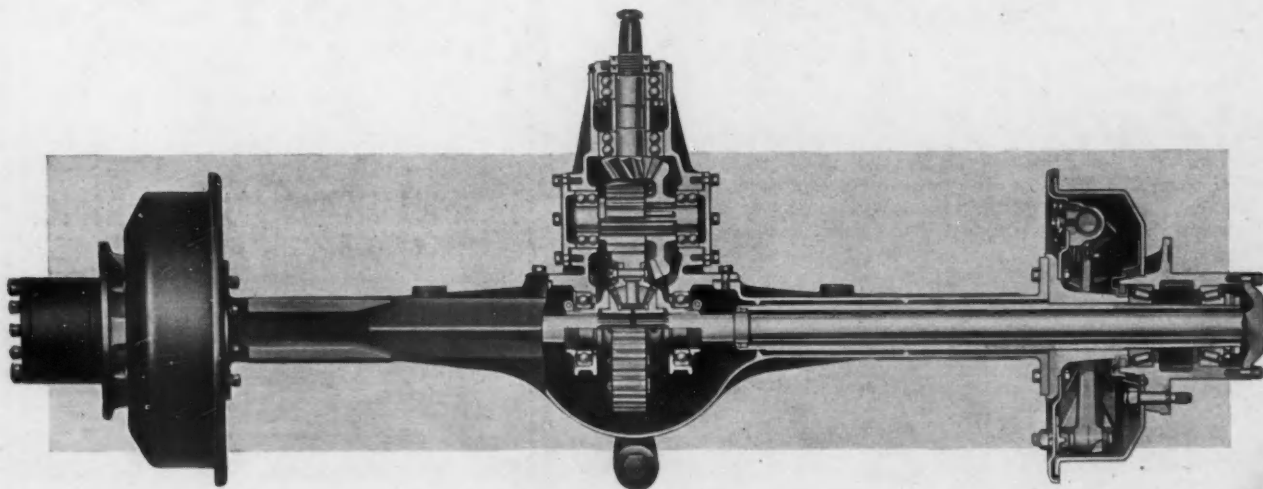


Changing horsepower into pulling power

Performance is power—*effectively used*. That is the reason so many truck and bus operators, familiar with Wisconsin Axles, prefer them—for their sturdy ability to carry heavy loads—for the efficiency with which they convert horsepower into pulling power.

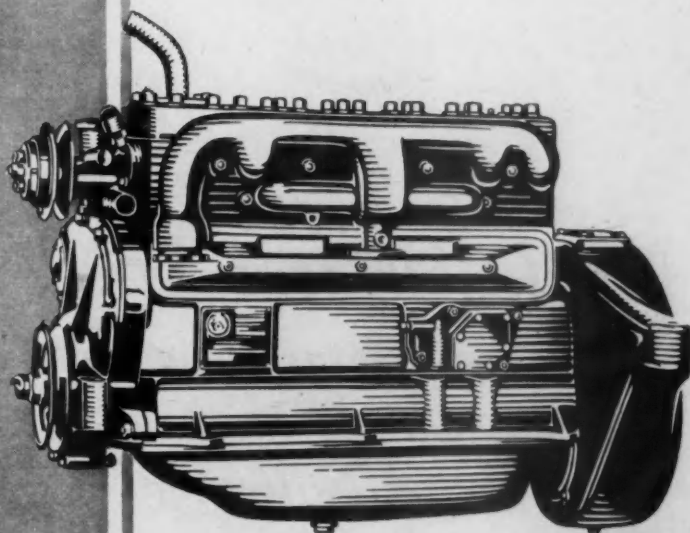
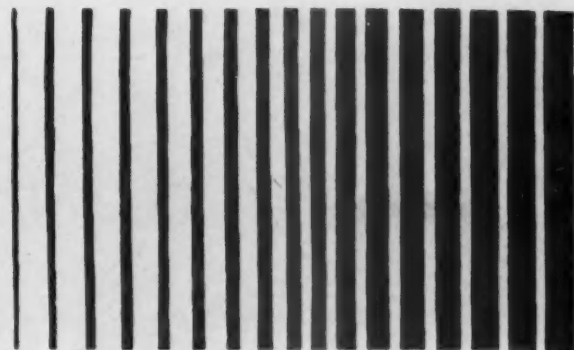
WISCONSIN AXLE COMPANY

Oshkosh, Wisconsin



Power Sets The Pace

The intelligent application of power to every industry is the determining factor in progress.



Wherever prosperous farmland borders on broad concrete highways, or joins busy new landing fields—there you hear the name of Continental. It may be spoken by a farmer, aviator, mechanic or casual motorist, for Continental engines are the pace-makers for everything from the soaring airplane to the grubbing tractor. They provide the added sales factor that clinches many an automobile sale in the showroom and makes customers enthusiastic on the road. Twenty-nine years' experience, plus enormous modern facilities and resources, make Continental the logical center of dependable power for every purpose.

CONTINENTAL MOTORS CORP.

Offices: Detroit, Mich., U. S. A.

Factories: Detroit and Muskegon

Largest Exclusive Gasoline Motor Manufacturer in the World



Continental Motors

HALL-SCOTT MOTOR CAR COMPANY
DIVISION OF
AMERICAN CAR AND FOUNDRY MOTORS CO.

HALL-SCOTT

BERKELEY
 CALIFORNIA

September 21st, 1929

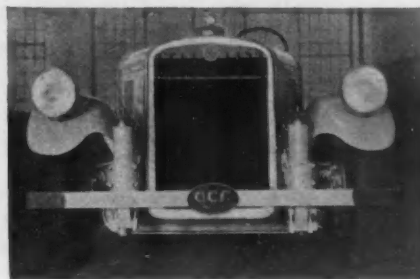
The International Nickel Company, Inc.,
 67 Wall Street,
 New York, N.Y.

Attention: Advertising Manager
 Gentlemen:

Our Company has been using chrome nickel iron for cylinder blocks and also for cylinder head castings for more than a year, and we find that it has many decided advantages in the heavy duty service to which most of our engines are put. For example, we make a large number of motor bus engines which are standard equipment in A.C.F. coaches, and California Transit coaches, and in many cases these engines operate more than 100,000 miles per year. The fact that the blocks are harder and more durable is a decided advantage in this kind of service. We also find that the life of the valve seats made of chrome nickel iron is much longer than that of the semi steel which we formerly used. We also find that our machining cost is less on chrome nickel iron blocks than on semi steel.

Very truly yours,
 HALL-SCOTT MOTOR CAR COMPANY
Charles Hall
 Chas. Hall

See Our
EXHIBIT
 Booths
 104-106,
 A. F. A.,
 Cleveland,
 May 12-16.



Hall-Scott engineers have found that durability of materials goes hand-in-hand with advanced design and thorough lubrication in holding down the cost per mile of bus operation. They have accordingly

standardized on Nickel Cast Iron for cylinder blocks and cylinder heads in heavy duty bus and rail car engines. Nickel Cast Iron is a scientifically correct cast iron. It possesses higher strength, greater resistance to fatigue and superior wearing qualities, and in addition it is easy to machine.



Our foundry specialists will gladly discuss your casting problems with you.

Nickel
 FOR CAST IRON

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

Illustrations show Hall-Scott powered A. C. F. motor busses.

REO MOTOR CAR COMPANY

MANUFACTURERS

CABLE ADDRESS
"REOLDS"

MOTOR CARS  SPEED WAGONS

WESTERN UNION CODE
A.S.C. 53 EDITION

Address all communications to the Company,
not to individuals

LANSING, MICH

December 12



New Departure Mfg. Co.,
Detroit, Michigan.

Att'n: Mr. C. N. House.

Dear Mr. House:

Sometime ago we shipped to your Company a lot of ball bearings from transmissions and rear axles having mileage varying from 75 to 136,000. We are very pleased at the report your Company has turned in on these bearings and we will reinstall them and continue the run. It is with great gratification that we find what long mileage these bearings will stand before breaking down or getting noisy.

Yours very truly,

REO MOTOR CAR COMPANY

F. Sergardi-M

★ Unretouched photograph of actual New Departure Ball Bearings removed for inspection from two Reo Flying Clouds which averaged 75,000 miles. They were found to be in A-1 condition for further service.

Another Reo rebuilt at 136,000 miles had New Departures in the transmission and pinion. The transmission bearings were inspected, found to be perfect in every respect, and were put back on the job. As the rear axle had not developed any noise, this unit was not taken down, nor were the bearings removed.

Thus New Departure Ball Bearings do their part in maintaining the slogan of the splendid Reo automobile: GOOD for 100,000 miles!

Mr. F. Sergardi is well known in automotive circles as the Designing Engineer of the Passenger Car Division of the Reo Motor Car Company.



NEW DEPARTURE BALL BEARINGS

Showing the World...



Something New in Performance

From a standing start at the foot of this 50 per cent grade, the Six-Speed Special takes a capacity load to the top, backs half-way down, and then goes up again.

The celebrated Six-Speed Special has shown the world something new. It has become a remarkable best-seller among trucks through its outstanding performance. The better a man knows trucks the more enthusiastic he is when this sturdy International does its stuff before him. The fifty per cent grade shown in the picture above is easy for the Six-Speed Special. We want an opportunity to translate this performance into your

toughest going under heavy loads.

The Six-Speed Special is the original heavy-duty speed truck with two complete power ranges. It has a low range for the most difficult roads, for plowed fields, sticky gumbo, and steep hills, and a high range for speed on the highway. It has sturdy members throughout, good looks, and 4-wheel brakes. It runs and steers and stops to just about perfection. There are bodies for all types of loads. Ask

us to give you a demonstration.

In addition to the Six-Speed Special the International line includes the Special Delivery for loads up to $\frac{3}{4}$ -ton; 4 and 6-cylinder Speed Trucks of $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-ton sizes; Heavy-Duty Trucks ranging from $2\frac{1}{2}$ -ton to 5-ton sizes; Motor Coaches, and McCormick-Deering Industrial Tractors. Sold and Serviced by 176 Company-owned Branches in the United States and Canada, and dealers everywhere.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave.

OF AMERICA
(INCORPORATED)

Chicago, Illinois

INTERNATIONAL TRUCKS



THE SPECIAL TRUCK EQUIPMENT ISSUE

EDITORIALLY this issue is designed to serve as a special truck equipment reference book. Its contents embody a wealth of practical information which should help the trade in its selling and the operators in their buying. That is its primary purpose.

A secondary purpose is to enable truck manufacturers and special equipment manufacturers to visualize the extent to which the industry has come to depend upon special truck equipment and thus to inspire them to more cooperative development in the interests of most economical truck operation.

It is our confident belief that both purposes of this special issue will attain a satisfactory degree of fulfillment.

In the early pages articles by authoritative contributors deal in detail with the reasons why special truck equipment came into being, what its effects have been and why those who sell and use trucks should gain all the knowledge they can on the subject. These articles tell far more eloquently than can be told here the reasons for conceiving this special issue to awaken everyone in any way interested in trucks to a full consciousness of the vital importance of special truck equipment.

The succeeding pages are devoted to descriptions of special equipment items classified according to kind and type. Each description embodies the following essentials: its nature, its purpose, its manufacturers and its users. By virtue of this treatment the entire issue is a veritable arsenal of selling and buying ammunition.

Changes and developments in this important branch of the truck industry are to be hoped for and expected. And, it may be

observed, the developments will not concern themselves solely with product improvement. A change is due in the attitude of the average truck salesman. The time is here when one of his selling requisites should be the ability to recommend proper special equipment. It must be as much a specialty with him as the chassis he is selling. Heretofore, because of a lack of knowledge, the salesman has been dependent entirely upon the distributor of special equipment. When the change is effected the equipment distributor actually will be to truck salesmen what a specialist is to good doctors, and not, as is the case now, a bona fide specialist to pseudo physicians.

It will be the regular task of this publication to record every important special equipment development. And annually an issue such as this will be devoted exclusively to a summary of progress.

The merit of a special number such as this lies in editorial execution. A score of sound reasons, felicitously expressed, might be advanced to justify the birth of the idea and to proclaim its nobility of purpose. But no matter how numerous and excellent the arguments or how fabulously commendable the aims, the reader's judgment must inevitably be swayed by the nature of the editorial contents.

Since he is the best judge of their value to him, the succeeding pages are respectfully commended to his attention with a confident feeling that he will find a vast amount of interesting information which he can turn to his profit.

GEORGE T. HOOK,
Editor.

THE TRUCK WORLD IS

THINGS are happening in the truck industry.

Where once we were prone to recognize only the problems of manufacture and sales technique, this great, growing industry of ours has finally turned "equipment conscious."

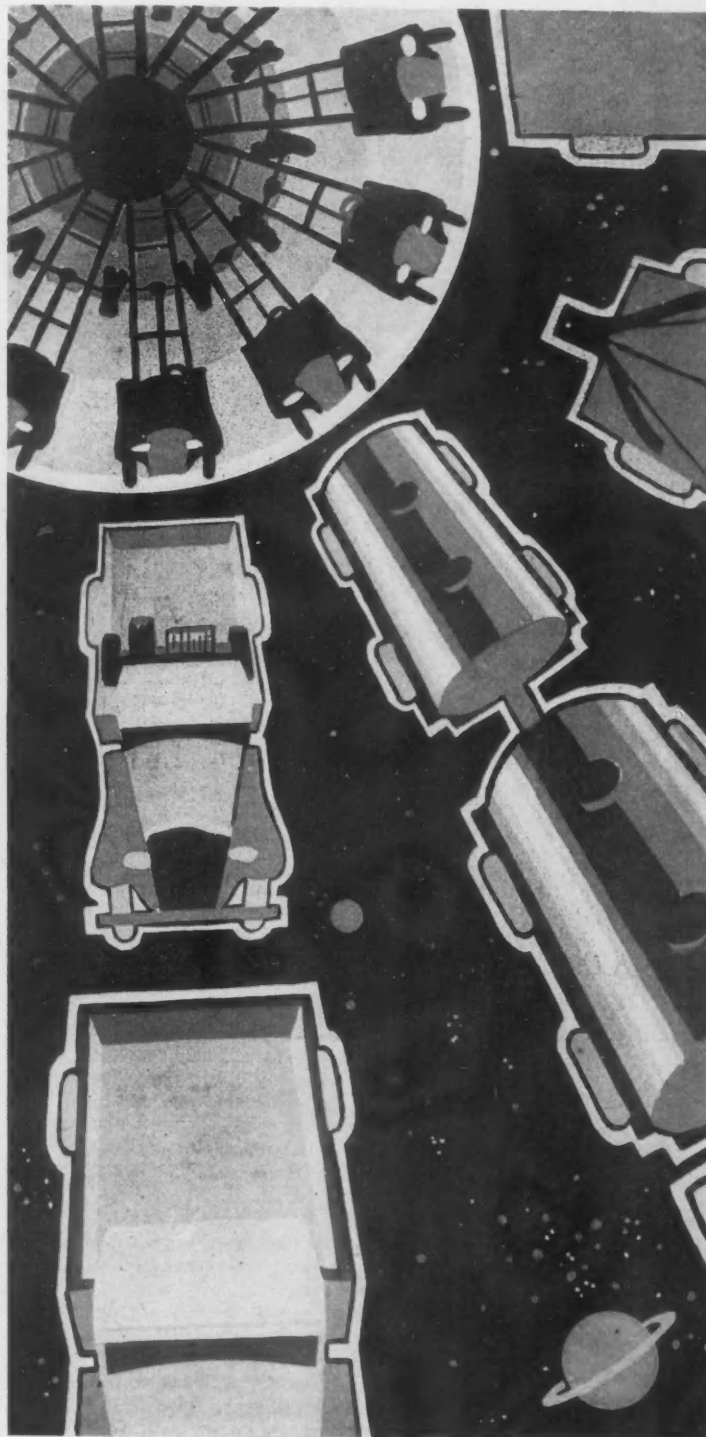
Where once, and not so long ago, the smart factory sales departments and their dealers were found to be the ones to bend their efforts vocationally, we now find the factory engineers working hand in hand with the equipment makers to give the user a chassis and body combination of greatest efficiency.

"You vocationalize your sales effort—you time this effort to the peak periods of the users according to leading lines of business—you build a wide range of chassis sizes and lengths, so why not take the final step and produce bodies designed vocationally?" asked the voice.

Ten years ago the popular-priced truck lines consisted of one or two wheelbase models. Although rated closely as to capacity, there was practically no difference in their construction except as to wheelbase, tire size and gear ratio. Then came persistent demands for a greater range of wheelbases and capacities, which has been answered slowly—but answered.

Practically every step in this expansion was the result of demand from the field, rarely factory foresight. And, if you will remember, it was not until about two years ago that any maker turned out a chassis of medium capacity and long wheelbase to handle long materials such as pipe and lumber. Chassis which were long enough were too big, and those which were of the right tonnage capacity were too short.

Forgetting almost entirely that, after all, it is the body characteristics which regulate the chassis, the factory engineers for years went on answering the demand for more chassis varieties, paying no attention seemingly to the body situation itself. If enough deal-

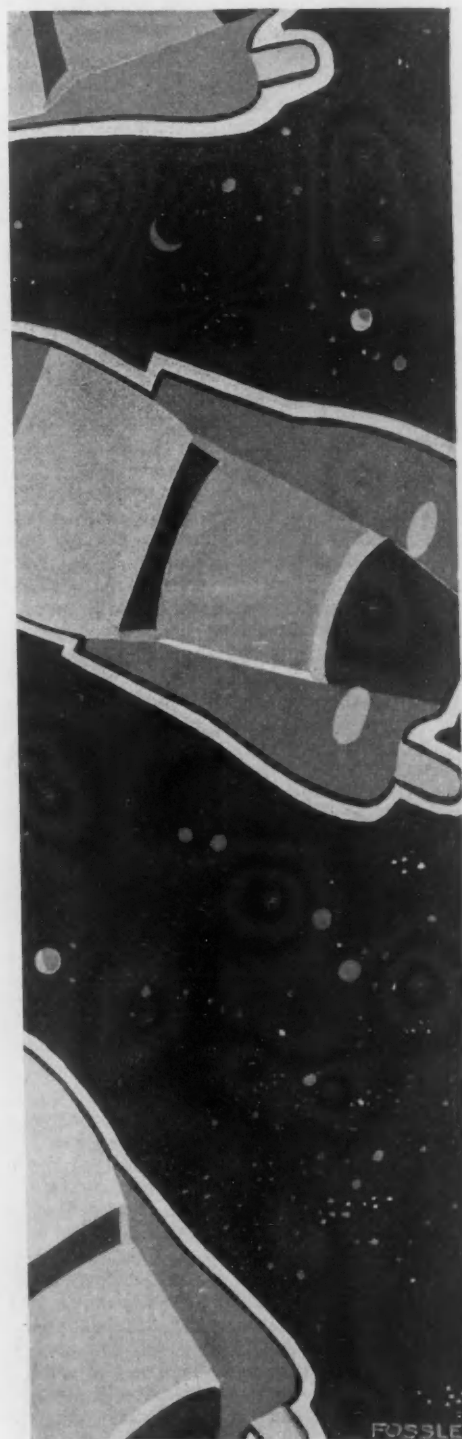


April, 1930

038506
19643

The Commercial Car Journal
and Operation & Maintenance

EQUIPMENT CONSCIOUS



Essential Advantages of Special Bodies and Labor-Saving Devices Influence Buying and Selling Transportation

Your Informant—



CARL PARKER

Ass't Sales Manager

Speedwagon Division
Reo Motor Car Co.

ers wrote in often enough asking for much the same thing in a chassis, they eventually got it. But each time it took about so many failures in locally lengthened or otherwise altered chassis to cause something to be done about bringing out a strictly factory-built job to fill the needs of the customers.

Fact was that the users knew more about truck operation than did salesmen, and salesmen knew more about the public's requirements than did the folks back at the factory.

Vocational literature appealing to the leading lines of consumption furnished by the factories to their dealers was invariably illustrated with bodies so special in nature that no one at the factory could tell the dealers just where one like it could be bought within a reasonable distance of where it was to be used, unless it was in the very community where it was made, in which case those in that section did not have to ask.

The body man himself had no organization; indeed, he was

fortunate if he had a typewriter on which to pound out his answer to inquiries. He couldn't afford to do much advertising because the mediums had national circulation and he didn't have national representation or distribution.

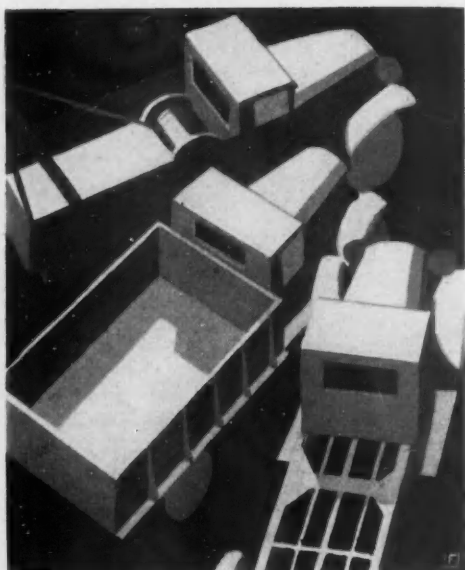
How trucks progressed as much as they have is a wonder. Bodies built by carpenters without thought of chassis burden—bodies mounted without thought of weight distribution either as to tires, frame or springs were the bane of the factory engineer's life. Yet what did he do about it?

"Don't overload," he cried, but did he do much until recently to help the user to load properly? He marked his chassis for payload and deadweight. He stated his body weight limits, and he tried to use the poor tires for his governor against overloads with the result that capacity ratings became an item to be scorned and bootlegged.

Millions for defense, but not one cent for bodies!

TURN TO PAGE 74, PLEASE

EQUIPMENT EXTENDS TRUCK EFFECTIVENESS



Creates Sales When Dealer and Truck and Equipment Makers Cooperate to Meet Operator Requirements

SPECIAL truck equipment offers the truck industry unlimited opportunities which cannot be overlooked in the effective use of motor trucks for specialized transportation purposes, as labor-saving devices and advertising mediums. There are few vocations in which special equipment is not a vital factor or even a necessity in meeting the operating requirements of the truck user.

It is only within the past few years that special truck equipment has really come to the front as an important phase of the truck industry, and to the operator credit can be given as the instigator of equipment as at present developed. The many existing types of equipment, including so-called converted standard chassis and bodies, are primarily a result of the operator's demand for transportation units or mobile labor-saving equipment economically suitable to his particular needs.

Formerly, little attention was given to the problem by the truck manufacturer, it having been left to the operator and truck dealer to work out their own salvation. Today, however, there is a growing appreciation of the importance of special equipment to the operator, the truck dealer and the truck manufacturer. Progressive truck manufacturers are realizing that selling transportation is a specialized business requiring a constant study of the actual and potential requirements of the operator. As a result many manufacturers have formed special sales engineering divisions whose function it is to investigate available special equipment, apply it correctly to suitable chassis with

a view to increasing their utility and salability, and to serve the dealer organization and the operator in a special advisory capacity.

A close contact with equipment manufacturers is essential to help them adapt their products in the most efficient manner. In many instances equipment makers are in position to suggest certain chassis features or changes which will facilitate the mounting, operation and maintenance of the complete unit. This, of course, means a material reduction in original cost and minimized service difficulties.

An excellent example of the beneficial effects of cooperative action between manufacturers and operators is seen in the dump body. Here much has already been done toward standardization and simplification in application with enormous economic savings to coal dealers, road builders, general contractors, etc.

There are many problems involved in the furnishing of special truck equipment. Fundamentally the truck buyer usually favors special equipment having the approval of the truck manufacturers, for it is not to his advantage to be operating his trucks contrary to factory recommendations. It has been my experience that many of the difficulties involved due to improper size of equipment, incorrect mounting, poor engineering, and what not, can be materially reduced where the manufacturer makes provision for handling this work or where it is conducted under the manufacturer's supervision. This is a distinct service to the dealer, who in many cases is compelled to pass up sales opportunities where he is

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By EUGENE L. MENCH, JR.,

Formerly Special Equipment Engineer
for Dodge Brothers Truck Division

MARKET JUST SCRATCHED, EQUIPMENT MAKERS SAY

Statements Reveal Justifiable Optimism But Also Show Makers Lack Complete Market Information

MANUFACTURERS of special truck equipment are highly optimistic about future business. The many views expressed on this subject were admirably summarized by one general manager who made the following statement:

"Truck Special Equipment has a particularly bright outlook. The ultimate purpose of the chassis is the reason for its purchase and since its ultimate purpose cannot be fulfilled until the chassis is fitted with the proper equipment, it is vital to the success of the investment in the complete truck that equipment suitable for handling the 'pay load' be selected with greatest care.

"By all means must users select a good truck chassis of suitable capacity, but the whole purpose and intent of the chassis can be nullified by selecting the wrong special equipment. Opposed to this negative thought is the design and service offered by the builders of special equipment for trucks so that the truck chassis can be adapted for almost any use or purpose.

"Sellers of trucks realize these days they must analyze the truck buyers' requirements and be in a position to have the cooperation and advice of builders of special equipment who can supply the 'pay load container and labor-saving device' which will most economically serve the user.

"Special equipment has broadened the field of usefulness of motor trucks and is continuing to adapt the truck chassis to more and more lines of industry. The surface has hardly been scratched and better and bigger things are most certainly ahead for the resourceful and energetic marketer of special equipment for trucks."

While estimates regarding the outlook are not lacking there was a lack of estimates when this publication communicated with more than 200 manufacturers covering every special equipment classification and asked them to compute the annual potential market in their own fields. It was hoped that a compilation of answers would produce a fairly reasonable estimate of the annual potential dollars-and-cents market of special truck equipment. Instead, the answers consisted mostly of evasions, and admissions of ignorance. Answers such as "it is difficult to estimate the market and we ask to be excused from answering" and "this is rather a hard one and as you are in far better position to



answer than we are, I know we will be perfectly safe in passing the question right back," were an inspiration to moan Bert Williams' famous blue song, "Nobody Knows and Nobody Seems to Care."

Special truck equipment unquestionably has a multi-million market, and its very size makes it imperative for manufacturers to know its exact extent in order to determine their own positions and lay plans for bettering them.

The matter was broached to A. W. Brownell, business manager of *COMMERCIAL CAR JOURNAL AND OPERATION & MAINTENANCE*, who had an obvious interest in it.

"The fact that not one special truck equipment manufacturer came back with this information leaves us to assume that they haven't got it," he reasoned. "This industry, of course, is comparatively young

and that may account for the failure of the manufacturers in it to line up essential business facts. This laxity could have been excused 10 or 15 years ago, but in the light of modern business methods it is hardly excusable. A certain degree of progress can be made in the dark, but there are innumerable chances of stumbling over slight obstacles which can be avoided or surmounted with a little illumination.

"Too much emphasis cannot be laid upon the need for a fairly accurate appraisal of the total unit and dollars-and-cents market for each manufacturer's product or products for the United States. Without this information it is impossible to create a business-like and logical quota for the factory and for each factory distributor and salesman. How

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SELL MOTOR TRUCKS

Salesmen Must Know Special Equipment and
Apply Right Kind to the Prospect's Job

SAYS WHO?-SAYS



TED HINCKEL

Sales Manager

Of Lamping Motor Car Co.
Seattle Washington

THERE is one all-important word that should be embodied in the truck salesman's vocabulary . . . *why!*

Trailers? Winches? Hoists? Special bodies? In fact, every special transportation problem must be met with an answer to the little word . . . *why!*

Even though the truck operator may not know a tinker's dam about truck operation, he still demands to know *why*. The less he knows, the more real information he demands of the salesman. The slap on the back, the cigar, the funny story, won't meet the need any more. The blah-blah truck salesman with the glib tongue will soon be in the limbo of things forgotten. Still, the woods are full of 'em!

I recall, not so long ago, when I was still doing outside duty, a small community in northern Washington was about to purchase a fire truck. I was sent on the job. It was a foreign settlement and very cliquish. One of the nationality in the community had a Blank dealership. Four of the committeemen were driving Blank cars. It looked like an easy setup for the Blank truck. However, as a concession to public good taste the visiting truck salesmen were allowed five minutes at a committee hearing to expound the virtues of their product.

Almost invariably the salesmen began their talks, "Well, I don't know much about a fire truck, but . . . blah, blah, blah!" Mostly blah! I was eighth in line, and solemnly resolved that I would make no such admissions of ignorance. I began shooting what engineering facts I had at my command at the group of yawning committeemen; more, perhaps, in defiant protest at their ignorance than with any hope of nailing the order.

At the end of 45 minutes the committeemen were still asking questions, but I decided that enough was enough. At the close of the meeting, I was assured of the order, and the next day the contract was signed.

This incident singularly impressed me with the potency of technical facts in selling trucks and truck equipment. It was one of the experiences that has almost made me a crank on the subject.

But there are others.

Once I called on a wholesale butcher. A competitive salesman was directly before me. He walked into the man's office, presented his card with a big flourish, extended an exuberant "big mitt" and a smile that would make Hollywood famous. Then he threw a bundle of catalogs on the prospect's desk. "They're all there . . . everything you want to know . . . when you're in the market for trucks, remember that we've got the goods . . . the best there is."

Apparently, there was nothing more to be said on the subject . . . and the salesman left. He probably reported a very successful call!

I was ushered into the butcher's office. We began talking transportation and its problems. I purposely made no direct reference to our particular line. I was more interested in listening to the prospect talk. He did, eventually.

In the meantime the butcher picked up the catalogs on the desk, casually leafed through them, and then just as casually heaved them into a nearby waste basket. Thoughtlessly he picked up the card left on his desk. As he talked he began to weave it between his fingers. It was folded in two, then into four sections. Carefully, the butcher tore it along the folded lines, and then threw the lot into the same basket. Not maliciously, but indifferently.

During this interval of sabotage I learned that the butcher hauled slaughtered beef to the Seattle market from outlying points. But his loads varied from day to day. Sometimes a 5-ton truck would be too small, and a 7-ton outfit too large. What to do? Then he needed more speed than a big truck would deliver.

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EQUIPMENT MEN CAN

IN most of the large cities are to be found truck equipment distributors who are equipment specialists. The services these specialists perform are well known to city truck salesmen who avail themselves of them. But the nature of this assistance is not so well known to salesmen in the small towns. To point the latter on the help that can be brought into play in the sale of both the truck and truck equipment this article was prepared by an equipment distributor and manufacturer who long has had an enviable standing in his field.

BY LEONARD



RODENHAUSEN

Truck Equipment

Distributor and Manufacturer
Philadelphia Pennsylvania

HOW can the truck salesman increase his sales? It would be drawing safely on years of experience to say that one way for the salesman to boost his sales is to take full advantage of the assistance a truck equipment distributor can give him in selling transportation.

This advice is so soundly productive that following it ought to be second nature with every truck seller. Why such is sometimes not the case requires a study of salesmen themselves.

There are several distinct mental attitudes to be found among various truck salesmen.

There is the truck salesman who knows his line in all its models, who can answer intelligently any question the user-prospect might put to him, and who *knows* he *does not know* all types of truck equipment in all their various forms and sizes. He is the type of salesman who goes to the truck equipment specialist for assistance, and consequently cannot help making the greater number of sales.

Another truck salesman who, too, knows his line in all its models and who, too, can answer on the spot any question about his truck, has the mental quirk that he knows everything about all kinds of truck equipment. This salesman will, when his prospect mentions winches, capstans, pumps, pole derricks, dump hoists, elevating bodies, concrete mixers or what not, grab his portfolio and with utmost confidence display a photograph or circular

and say, "There is what you want." The prospect looks at the proffered literature and starts asking questions: how many yards, what rope-pull at what speed, what is the horsepower delivered at the power takeoff, and how much horsepower is required by the particular piece of equipment, can the equipment now on his old truck be transferred to the new? Mr. Prospect is no fool. He had probably been a rigger, contractor, coalman, or other specialist, long before the salesman interviewing him started to sell. If so, the salesman flounders, bluffs and loses the confidence of the prospect and, more than likely, the order.

But suppose this salesman's bluff is so good that Mr. Prospect is caught napping and the salesman takes the complete order for chassis and equipment, only to have the entire combination refused for non-performance. What about the truck sales manager? Is he going to say: "Well, our little know-it-all has made another mistake, but that's all right." Not on your life; that salesman will soon be selling trifles from door to door.

Then we have another type of salesman, good as to the truck, but indifferent as to equipment, who tells his prospect that his only interest is in such and such a chassis and that as to equipment, *he* (Mr. Prospect) can buy it wherever he pleases. Well, this fellow won't get many orders.

In addition to these peculiarities of salesmanship,

HELP SELL CHASSIS



there is a more subtle something that makes the truck salesman reluctant to call on the equipment specialist for help in closing a prospect; it is the fear that the name of his prospect will be peddled to other truck salesmen. Such a fear is unfounded when dealing with reputable equipment specialists. The equipment specialist knows of no surer method of business suicide than to divulge the name of a truck salesman's prospect.

Coincidence sometimes takes a hand. Often an equipment engineer is called in the utmost secrecy to help a truck salesman, only to find that he himself has

been calling on the prospect for months and other truck salesmen have been doing the same thing.

The pendulum swings both ways, for often has an equipment salesman's prospect been betrayed to another by a truck salesman. In mutual trust there can be no dishonor. Mr. Truck Salesman, you must trust the equipment specialist. Do not fear to call in the equipment engineer for fear he will make you feel ridiculous in the eyes of your prospect. Consider a case of life and death when the family physician is supplemented by

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SPECIAL BODIES

F R

Manufacturers of Special Bodies

IN ALMOST EVERY TOWN OF ANY SIZE THERE IS A BODY BUILDER THAT CAN SUPPLY MOST OF THE SPECIAL BODIES DESCRIBED HERE. PHYSICAL LIMITATIONS MAKE IT IMPOSSIBLE TO LIST THE NAMES OF ALL SUCH BODY BUILDERS. BUT BELOW IS A LIST OF MOST OF THE LARGER COMPANIES LOCATED IN THE LARGER CITIES.

REFERENCE NUMBERS GIVEN BELOW CORRESPOND WITH NUMBERS APPEARING UNDER EACH TYPE OF BODY DESCRIBED IN THIS REVIEW, AND SERVE TO IDENTIFY THE MANUFACTURERS.

Reference Number	Name and Address
1.	Acme-Simplex Body Co., 141 Baldwin St., Youngstown, Ohio
2.	American Armor Corp., 33 W. 34th St., New York
3.	American Body Co., 5113 E. Grand Ave., Dallas, Tex.
4.	American Truck & Body Co., Martinsville, Va.
5.	Anheuser-Busch, Inc., 9th and Arsenal Sts., St. Louis
6.	Arcadia Truck Body Corp., 21 Murray St., Newark, N. Y.
7.	Armstrong-Johnson Co., 97 N. Washington Ave., Columbus, Ohio
8.	Atlas Body Works, 147 McKinley Ave., Bridgeport, Conn.
9.	Auto Truck Equipment Co., 7501 Penn Ave., Pittsburgh
10.	Beacon Body Co., 100 Walnut St., Somerville, Mass.
11.	Beckert & Son, Pittsburgh
12.	Bender Body Co., W. 62nd St. and Denison Ave., Cleveland
13.	Born & Sons, Herman, 219 N. Fremont Ave., Baltimore
14.	Brown Body Corp., 4917 Superior Ave., Cleveland, Ohio
15.	Buffalo Commercial Body Co., 1255 Niagara St., Buffalo, N. Y.
16.	Carl's Sons, Cole and Linewood Sts., Trenton, N. J.
17.	Chandler Body Co., Shreveport, La.
18.	Charlotte Wagon & Auto Co., Charlotte, N. C.
19.	Clark Mfg. Co., J. L., 519 High St., Oshkosh, Wis.
20.	Davenport Body Co., 1507 Rockingham Rd., Davenport, Iowa
21.	Davis & Son, 209 W. Third St., Winona, Minn.
22.	Dehance Co., Parry and Gorman Sts., Dehance, Ohio
23.	DeKalb Wagon Co., 229 Garden St., DeKalb, Ill.
24.	Divco-Detroit Corp., 16th St. and Merrick Ave., Detroit
25.	Dix Son & Co., 235 Poplar St., Memphis, Tenn.
26.	Eagle Wagon Works, 45 Columbus St., Auburn, N. Y.
27.	Eddystone Steel Co., Foot of Maddock St., Crum Lynne, Pa.
28.	Edwards Wheel & Body Works, Inc., Dallas, Tex.
29.	Erie Vehicle Co., 4529 S. State St., Chicago
30.	Erlinder-Platt Body Corp., 4007 S. Wabash Ave., Chicago
31.	F & S Body Co., 3027 Commerce St., Dallas, Tex.
32.	Fitz Gibbon & Crisp, 467 Calhoun St., Trenton, N. J.
33.	Fitzjohn Mfg. Co., Muskegon, Mich.
34.	General Body & Paint Co., 609 N. Main St., Fort Worth, Tex.
35.	Gilhool Body Works, 1227 Washington Ave., Scranton, Pa.
36.	Gross & Gross Auto Works, 225 Seventh St., Salina, Kan.
37.	Heil Co., 1142 Montana Ave., Milwaukee, Wis.
37a.	Hercules Products, Inc., Evansville, Ind.
38.	Interboro Hoist & Body Corp., Borden Ave. and Van Dam Sts., Long Island City, N. Y.
39.	Izett Auto Body Co., 1448 Speer Blvd., Denver, Colo.
40.	Kaiser & Co., 23rd and Race Sts., Philadelphia
41.	Kentucky Wagon Mfg. Co., 3rd St. at Eastern Parkway, Louisville, Ky.
42.	Kratzer Carriage Co., 100 S. First St., Des Moines, Iowa
43.	Krauss Co., 3511 N. 13th St., Philadelphia
44.	McGarry Co., 2136 S. Ashland St., Chicago
45.	McKay Carriage Co., Erie Ave. and Center St., Grove City, Pa.
46.	Martin-Parry Corp., W. Market St., York, Pa.
47.	Meyer Body Co., 218 Elm St., Buffalo, N. Y.
48.	Mid-City Auto Body & Wagon Works, 1500 W. Grand Ave., Chicago
49.	Mifflinburg Body Co., 101 Eighth St., Mifflinburg, Pa.
50.	Montgomery Co., 2546 St. Louis St., New Orleans, La.
51.	Motor Transit Co., 220 E. Market St., Los Angeles, Cal.
52.	National Steel Products Co., 1611 Crystal Ave., Kansas City, Mo.
53.	Novelty Carriage Works, 815 Second Ave., Spokane, Wash.
54.	Ohio Truck Body & Wagon Co., 3291 E. 65th St., Cleveland, Ohio
55.	Package Car Corp., Union Stock Yards, Chicago
56.	Paterson Vehicle Co., 27th St. and 19th Ave., Paterson, N. J.
57.	Plymouth Body Works, Plymouth, Ind.
58.	Proehl Body Corp., 3029 Calumet St., Chicago
59.	Providence Body Co., Providence, R. I.
60.	Roeder Mfg. Co., 1392 Atlantic Ave., Brooklyn, N. Y.
61.	Schaefer Co., Gustav, 4180 Lorain Ave., Cleveland, Ohio
62.	Schurmeier-Whitney Co., 419 N. Fifth St., Minneapolis, Minn.
63.	Staley Co., 915 Eleventh Ave., Seattle, Wash.
64.	Standard Steel Works, 16th and Howell Sts., Kansas City, Mo.
65.	Steffen Body Co., 613 W. Seventh St., Sioux City, Iowa
66.	Step-N-Drive Truck Corp., 1255 Niagara St., Buffalo, N. Y.
67.	St. Louis Car Co., 8000 N. Broadway, St. Louis, Mo.
68.	Superior Body Co., E. Kibbey St. and Mandeville Ave., Lima, Ohio
69.	Thorne Motor Corp., 3231 W. Lake St., Chicago
70.	Truck Equipment Co., 1791 Filmore Ave., Buffalo, N. Y.
71.	Twin Coach Corp., Kent, Ohio
72.	Waterloo Bodies, Inc., Waterloo, N. Y.
73.	Weber & Co., 300 E. Main St., Louisville, Ky.
74.	Weldmech Steel Products Co., Hattiesburg, Miss.
75.	Welbilt Body Co., 1400 E. Adam Rd., Los Angeles
76.	Wentworth & Irwin, 327 Oregon St., Portland, Ore.
77.	Whitefield & Sons, Inc., Champlin Ave., Penn Yan, N. Y.
78.	Wood Hydraulic Hoist & Body Co., 7924 Riopelle St., Detroit
79.	Woodward Mfg. Corp., Austin, Tex.
80.	York-Hoover Body Corp., York, Pa.

THE body is an important sales factor and represents for the truck salesman at once a sales challenge and a sales opportunity. The one big interest of all buyers lies in the correct solution of their own individual problems and the salesman who knows what body is best adapted to a given need and knows where to get it will make sales.

Correct solution of the operator's problem, whatever his vocation, involves consideration of his own specific operation. While his needs, in many cases, may be met with standard stock bodies such as panel, express, canopy express types there are many instances, in view of the special character of his business, where these would not suffice. For example, the manner of handling merchandise after it is on the truck may be the key requirement. The bottler and glazier fit into this category. Appearance and style may be the paramount feature. In this class might be included retail stores, furriers, florists, etc. To other operators economy and ease in loading and unloading may be the prime consideration as in the case of the brick, coke and lumber dealer. Still others would normally be content with a van body, but are specially interested in the safety of load and driver and therefore may want an armored job. Others want a light body to permit the carriage of greater pay-loads. Demonstrators and portable stores are other examples of special needs. To properly fill these various special requirements salesmen must know what the market has to offer.

The following pages carry a review of some of the outstanding special bodies on the market today.



BOTTLERS

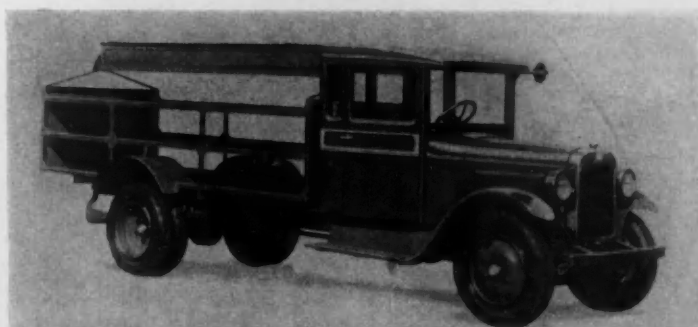
Case Goods

These bodies are built with two, three or four decks so that they may be loaded or unloaded from either side and so that individual cases can be handled without the need of moving others. They are available in various case widths, usually three or four, and in lengths ranging from about 40 to 225 in. to carry from 40 to 240 cases, according to the requirements of the operator and the specifications of the truck upon which they are to be mounted. They can be obtained with open or closed sides.

Single Bottles

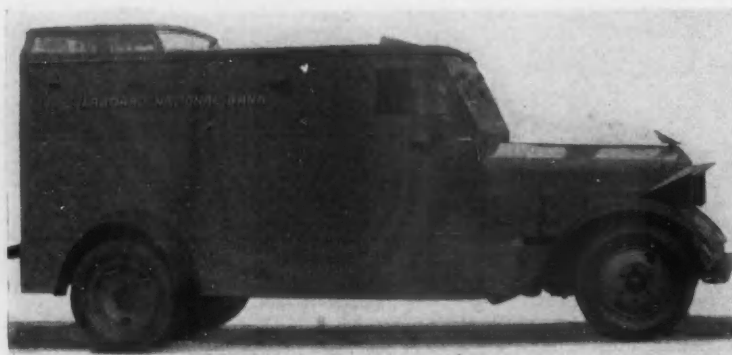
Bodies designed for hauling large single containers are generally of the two-deck type. Here again this construction is offered to facilitate handling by eliminating piling. Widths are determined by the size of the container, its case and the number of bottles to be carried across. The length varies according to requirements and capacity of the truck. Capacities range from 50 to 200 bottles. Sides are generally open.

MANUFACTURERS: SEE REFERENCE NUMBERS 3, 5, 9, 13, 15, 20, 32, 41, 42, 48, 61, 63, 74, 76, 78, 80.



SPECIAL BODIES FOR

Turn to Page 56 for



GLASS

Vertical

Vertical-type bodies are especially adapted to the needs of wholesale concerns, retail firms doing a large replacement business and others specializing in large sizes. These bodies are furnished with racks for carrying glass either on the outside or inside of the body. Vertical conveyance of large sizes allows greater flexibility in transit, does not infringe highway regulations and facilitates handling.

Flat

Glass bodies of the flat type are essentially express-type bodies with a removable rack placed on and supported by the sides. They are particularly adapted for small city concerns doing most of their business in smaller sizes of glass, or for concerns located in small towns where the demand for large sizes is infrequent. Some of the express-type glass bodies have hinged sideboards, by means of which rack widths may be extended. These bodies can accommodate glass as large as 72 x 150 in.

MANUFACTURERS: SEE REFERENCE NUMBERS 9, 11, 28, 32, 37a, 40, 46, 59, 60, 61, 80 on page 22.

ARMORED

Money

While the layout of armored bodies vary somewhat according to individual needs and tastes, the fundamental features of design and construction are similar. Sides, floors and roofs are built of steel armorplate, generally 1/2-in. material for the sides and lighter sheets for the floors and ceilings; windows and windshields are bullet-proof; interiors are ventilated and illuminated, and exteriors are free of footholds. Variations include layout of compartments, raised roofs, location and types of portholes, pay-off windows and trays. There is also a trend away from fort-like appearance to invisible armoring.

Cargo

Here is a van body equipped with an armored cab made of aluminum alloy used in the transportation of valuable and bulky cargoes. By protecting the driver against the highwayman, the operator protects his merchandise. To armorplate the whole body with steel would make the body too heavy, but the development of bullet-proof aluminum alloy may remove this disadvantage.

PROSPECTS: Armored service organizations, banks, express companies, gang operators, mine operators and salesmen (valuable samples).

MANUFACTURERS: SEE REFERENCE NUMBERS 2, 8, 16, 27, 32, 38, 43, 50, 52, 61, 64, 67, 75 on page 22.

42 VOCATIONS

Additional Descriptions

COKE

Coke being bulkier than coal, the body required to transport it must, of course, vary from that used for coal. Coke bodies are so designed that the load is discharged by gravity without the need of hoisting equipment. Floors are pitched so that the coke may be discharged through scuttles along the sides or rear. All bodies, whether of 3, 5 or 6-ton capacity, are divided into 1-ton compartments.

MANUFACTURERS: ANY STEEL FABRICATOR CAN BUILD A COKE BODY TO SPECIFICATIONS. SEE NUMBERS 9, 32, 78 on page 22.

LUMBER

Although available in several different forms, lumber bodies are essentially of the platform-stake type. Among the styles offered are plain platform and stake; flat and inclined platform with idle rollers; flat and inclined platform with idle rollers and a crank-and-ratchet controlled roller at the rear, and dumping platform type, in which the body is rolled back and tipped mechanically to discharge the load.

MANUFACTURERS: SEE REFERENCE NUMBERS 9, 14, 20, 30, 31, 37, 38, 44, 51, 60, 61, 63, 70, 76 on page 22.

DEMONSTRATORS

Demonstrating trucks are actually traveling display rooms designed to demonstrate and promote the sale of products. The form such bodies take is governed by the nature of the merchandise to be demonstrated and the territory to be covered. Bodies in this service pattern no standard form and may be of the panel delivery, canopy express, van or bus types. The illustration shows an automotive equipment used by a jobber.

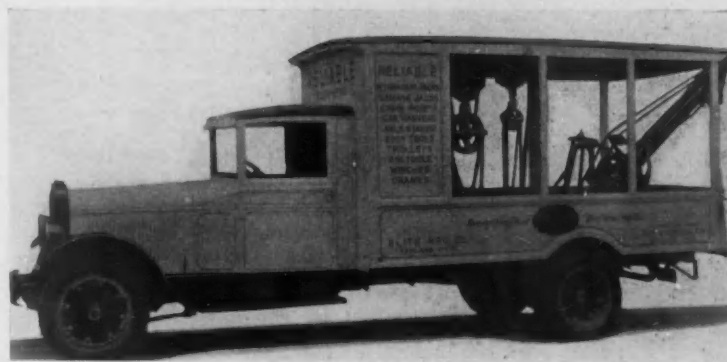
MANUFACTURERS: BODY MAKERS EQUIPPED TO BUILD SUCH A BODY TO SPECIFICATIONS ARE LOCATED IN ALMOST ALL THE LARGE CITIES. SEE REFERENCE NUMBERS 9, 30, 32, 38, 43, 61, 76 on page 22.

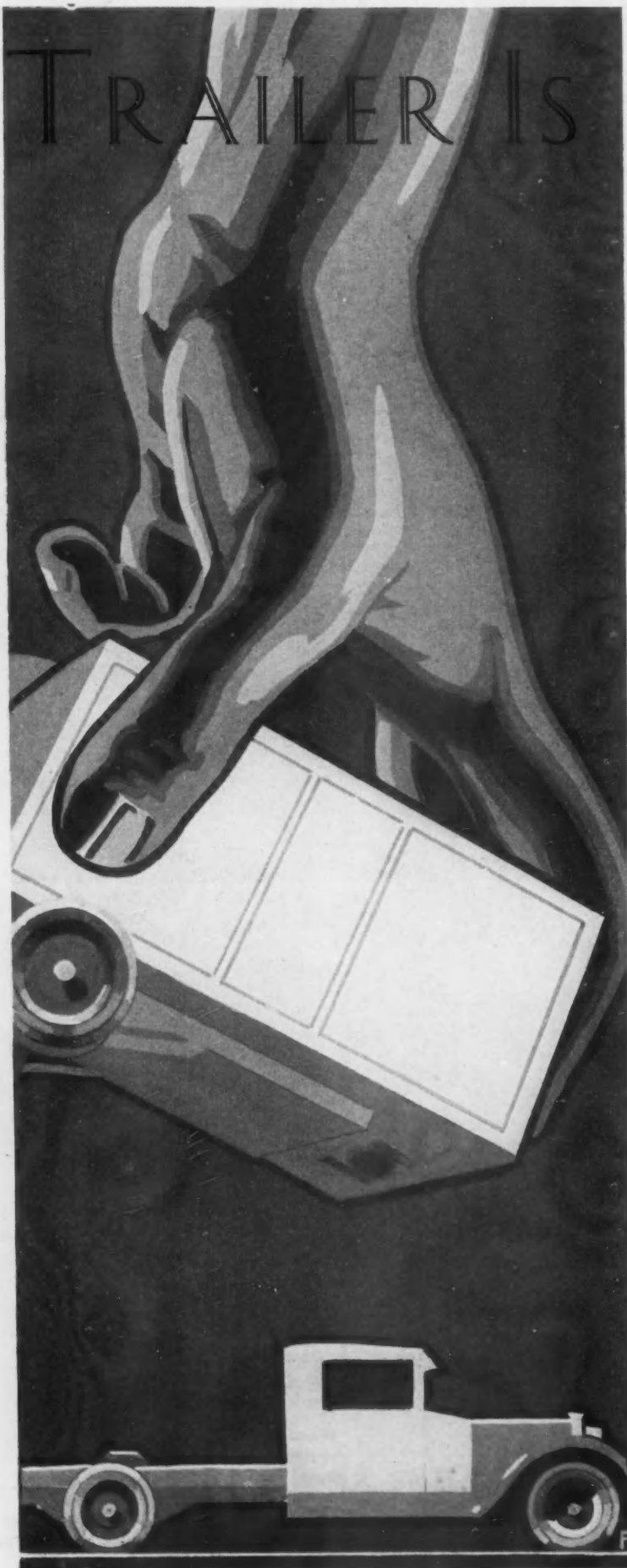
EXPANDO

Expando is the trade name of a special body designed for merchandising purposes. In transit it has the appearance of a typical delivery unit, but at destination sides and ceiling are extended, forming a large display room. The moving parts are operated by worm gears driven by an electric motor. Automatic stops control both expanding and closing. Expanded, this body is 80 in. high, width, 103 in., and length, 91 in.

PROSPECTS: Automotive manufacturers, beverage makers, confectioners, construction operators, dress goods dealers, electrical houses, food manufacturers, furniture makers, hardware concerns, musical instrument makers, stationers, surgical instrument makers and tobacco companies.

MANUFACTURER: Expando Co., 120 S. LaSalle St., Chicago.





April, 1930

TRAILER IS TRUCK'S

Four-Wheel and Semi-Trailers,
Pole and Special Types
Help Trucks Meet Varied
Hauling Requirements

TRUCK dealers and salesmen consider trailers from a different viewpoint than was the case a few years ago. Instead of looking on trailers as rivals of trucks, they now recognize them as allies in the field of transportation.

Not so long ago, many truck dealers turned to trailers only as a last resort. If a particular job was more than one truck could handle, they tried to sell another. Not until they were called upon to recommend equipment to move a single load heavier than permitted by state laws on a four-wheel vehicle, or longer than load space of the longest wheelbase available, did they look up trailers.

But trailers did not remain in last place. Situations arose in which it was not a case of selling a truck or a trailer, but a case of selling a truck and trailer—or nothing. For example, oil companies which are keenly interested in cost of distribution of gasoline found that economies of trailer operation in bulk hauling made it feasible to transport gasoline to certain points formerly reached by rail shipment. More recently some of the oil companies have adopted small trucks and semi-trailers for services previously rendered by heavy trucks. Intercity freight haulers spot trailers at shipping platforms so that factory shipments may be loaded without extra handling on the platform.

There are other signs that trailers are being accepted as partners in the motor transportation field, one of which is the increasing number of manufacturers producing tractor-trucks for trailer operation. Ten years ago there were but 21 models of tractor-trucks listed in COMMERCIAL CAR JOURNAL specification tables, compared with 55 models in this issue. Although many of the present tractor-trucks are designed for hauling heavy loads,

*The Commercial Car Journal
and Operation & Maintenance*

TRANSPORTATION ALLY

MANUFACTURERS

Bower Mfg. Co., Fowler, Ind.
 Carter Mfg. Co., 1132 Kansas St., Memphis, Tenn.
 Clare Mfg. Co., Clare, Mich.
 Defiance Carriage & Body Co., Perry and Gorman Sts., Defiance, Ohio.
 Detroit Trailer & Machine Co., 453 Beaufait Ave., Detroit, Mich.
 Electric Wheel Co., Walton Heights, Quincy, Ill.
 Fruehauf Trailer Co., 10960 Harper Ave., Detroit, Mich.
 Hesse Mfg. Co., Leavenworth, Kan.
 Hewitt-Ludlow Auto Co., 75 Fremont St., San Francisco, Cal.
 Highway Trailer Co., Edgerton, Wis.
 Hobbs Mfg. Co., 605 N. Main St., Ft. Worth, Tex.
 Kentucky Wagon Mfg. Co., Louisville, Ky.
 Kingham Trailer Co., Inc., Louisville, Ky.
 Lapeer Trailer Corp., Fair St., Lapeer, Mich.
 Lee Trailer & Body Co., Plymouth, Ind.
 Martin Trailer Co., N. Elm St., Westfield, Mass.
 May Trailers, Inc., Shreveport, La.
 Muskogee Iron Works, Automotive Div., Frankfort and Spaulding Sts., Muskogee, Okla.
 Nabors Co., W. C., Mansfield, La.
 New Comer Trailer Mfg. Co., 1119 Santa Fe Ave., Los Angeles, Cal.
 Omaha Steel Works, 48th and Leavenworth Sts., Omaha, Neb.
 Reedy Auto-Truck & Trailer Co., Xanthus and Frisco Tracks, Tulsa, Okla.
 Reliance Trailer & Truck Co., 1642 Howard St., San Francisco, Cal.
 Gustav Schaefer Co., 4180 Lorain Ave., Cleveland, Ohio.
 Guy G. Spokely, Inc., Canby, Minn.
 Springfield Wagon & Trailer Co., Springfield, Mo.
 Texas Body & Trailer Co., 4516 Harrisburg Blvd., Houston, Tex.
 Trailmobile Co., 31st and Robertson Sts., Cincinnati, Ohio.
 Troy Trailer & Wagon Co., West and Union Sts., Troy, Ohio.
 Utility Supply Co., Clintonville, Wis.
 Utility Trailer Mfg. Co., P. O. Box 206, Arcade Sta., Los Angeles, Cal.
 Warner Mfg. Co., 449 Gardner St., Beloit, Wis.
 Wentworth & Irwin, 327 Oregon St., Portland, Ore.
 Whitehead & Kales Co., River Rouge Plant, Detroit, Mich.

PROSPECTS

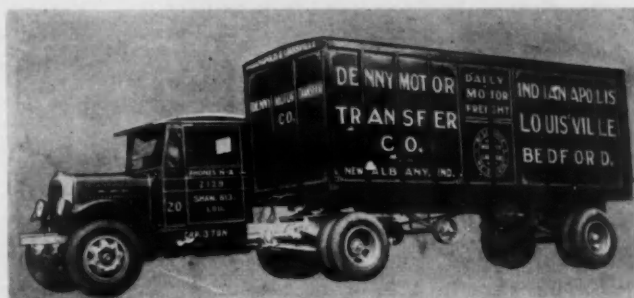
Semi-trailers and four-wheel trailers are used by practically all vocations having need of motor transportation. Usefulness of trailers will be shown by careful analysis of individual requirements ordinarily undertaken by experienced truck dealers or salesmen.

Pole Trailers: Contractors, pipe lines, public utilities, saw mills, lumbermen.

Low-Bed Trailers: General contractors, haulers, riggers, road builders, shovel owners, steel erectors.

Aerocar (Manufacturer: Aerocar Co. of Detroit, 7424 Melville Ave., Detroit, Mich.): Grocers, horse owners and dealers, manufacturers, schools, tourists.

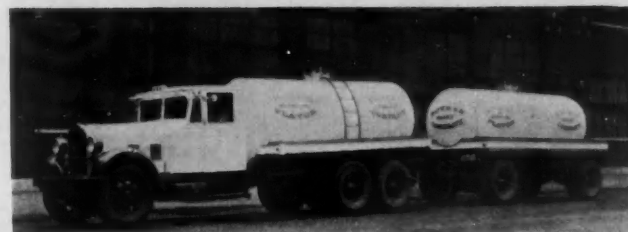
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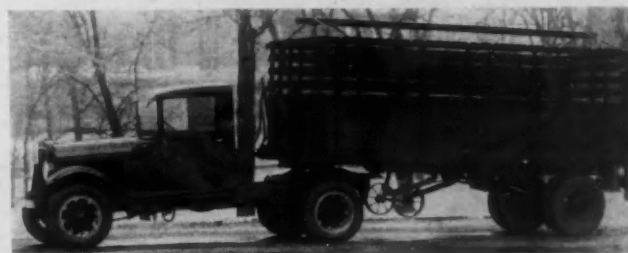
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TWO TRAILERS FOR HAULING FREIGHT AND TWO FOR TRANSPORTING LIQUIDS ARE SHOWN ABOVE

FIG. 1—A SEMI-TRAILER FOR INTERCITY FREIGHT SERVICE CARRYING A GENERAL MERCHANDISE BODY WITH SIDE DOOR

FIG. 2—SEMI-TRAILERS WITH TANK BODIES SERVE THE PETROLEUM INDUSTRY. UNITS RANGE FROM A FEW HUNDRED GALLONS TO SEVERAL THOUSAND

FIG. 3—FOUR-WHEEL TRAILERS INCREASE CARRYING CAPACITY OF TRUCKS OR SEMI-TRAILER UNITS. THIS COMBINATION HAULS MILK IN INSULATED TANKS

FIG. 4—A 5-TON SEMI-TRAILER COUPLED TO A 3-TON TRUCK-TRACTOR. LIKE MANY OTHERS, IT INCORPORATES DUAL PNEUMATIC TIRES

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others of smaller capacity are available and loads from the heaviest permitted down to a ton or more may be hauled on trailers.

Trailers are transporting practically every commodity and material which is hauled by truck, in addition to a few which are not well adapted to truck transportation. In the latter category are very heavy machines which are moved on low-bed trailers and long poles and pipes which are carried on pole trailers. Because of this diversity, bodies for trailer use embody all of the various types used on trucks.

Trailers usually are classified as semi-trailers and four-wheel trailers. Pole trailers actually are semi-trailers, but as they serve different purposes than ordinary semi-trailers, and they carry the load almost balanced on the trailer wheels, they frequently are given a separate classification. Low-bed trailers likewise serve special needs, and although they may be either semi-trailers or embody four or more wheels, they, too, are considered apart from the two major groupings.

Semi-trailers are attached to the towing truck by means of a fifth wheel which permits the truck to turn at right angles to the trailer for short turns. The trucks usually are made with short wheelbases to give shorter turning radius and make it easier to handle the semi-trailer. The semi-trailer comprises a frame, rear springs and a dead rear axle.

Some means of support for the forward end of the semi-trailer must be provided if it is to be uncoupled from the truck. The support is furnished by a pair of wheels mounted on brackets beneath the semi-trailer frame. Before moving over the road, the wheels are drawn up out of the way, and when the semi-trailer is disconnected, the wheels are brought down to contact with the ground. Raising and lowering of the wheels may be done by hand-power through a crank or wheel or by motion of the tractor unit in coupling and uncoupling.

Modern high-speed operation calls for quick stops, and brakes are commonly incorporated in rear axles of semi-trailers or four-wheel trailers. Brake mechanism must provide for angle between tractor and semi-trailer, and this is done in one of several ways. An automatic type brake makes use of momentum of the trailer to apply brakes when brakes are applied to the truck. As the trailer starts to move forward, the brake is applied in proportion to application of brakes on the tractor. For mechanical application of brakes on a semi-trailer, the actuating mechanism is carried through the king pin of the fifth wheel and brakes are applied by a separate lever in the truck cab. Another means of applying brakes on a semi-trailer is to fit a vacuum booster on the rear axle and control this cylinder with a

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TRAILER IS TRUCK'S TRANSPORTATION ALLY

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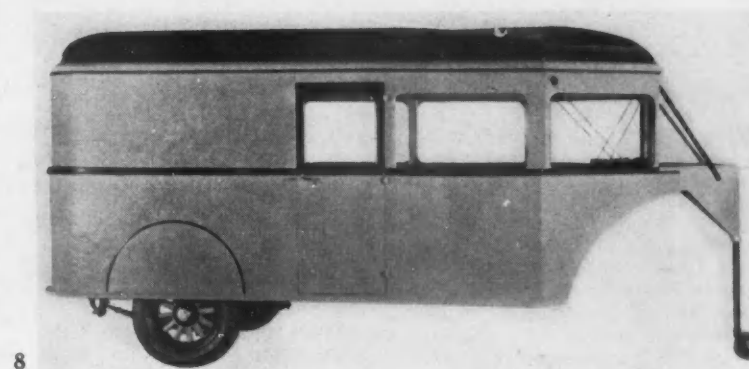
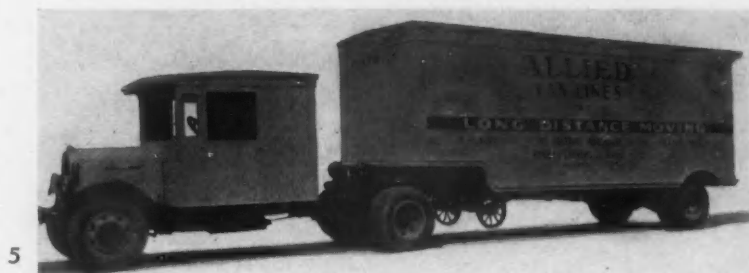


FIG. 5—A VAN BODY OF ANY DESIRED CUBIC CAPACITY CAN BE CARRIED ON A SEMI-TRAILER

FIG. 6—POLE TRAILERS ARE AVAILABLE WITH EITHER FIXED OR SWINGING BOLSTERS AND WITH OR WITHOUT SPRINGS. POLE LENGTHS ARE ADJUSTABLE IN MOST CASES

FIG. 7—MANY TYPES OF DROP-FRAME AND LOW-FRAME TRAILERS ARE BUILT FOR CARRYING HEAVY MACHINES WHICH ARE DIFFICULT TO LOAD AND UNLOAD

FIG. 8—THE AEROCAR SEMI-TRAILER WITH ONE-PIECE CHASSIS AND FRAME MAY BE USED AS BUS, TRAVELING STORE OR HORSE VAN

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AIR COMPRESSORS FURNISH POWER RIGHT AT THE JOB

Manufacturers

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 Cooper Bessemer Engine Co., 200 Chilton Ave., Grove City, Pa.
 Brunner Mfg. Co., 1800 Broad St., Utica, N. Y.
 Champion Pneumatic Machinery Co., 8170 S. Chicago Ave., Chicago, Ill.
 Chicago Pneumatic Tool Co., 6 E. 44th St., New York City.
 Curtis Pneumatic Machinery Co., 1927 Kienlen Ave., St. Louis, Mo.
 Gardner-Denver Co., 100 Williamson St., Quincy, Ill.
 Globe Mfg. Co., 76 Grant St., Battle Creek, Mich.
 Hewitt Mfg. Co., San Francisco, Cal.
 Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
 Lowville Machine & Vise Co., Lowville, N. Y.
 Penna. Pump & Compressor Co., Easton, Pa.
 Schramm, Inc., West Chester, Pa.
 Metalweld, Inc., 26th St. and Hunting Park Ave., Phila.

PROSPECTS: General contractors, electric power companies, gas companies, house wreckers, municipalities, painters, pipe line operators, paving contractors, quarries, rental agencies, road builders, steel erectors, water supply companies.

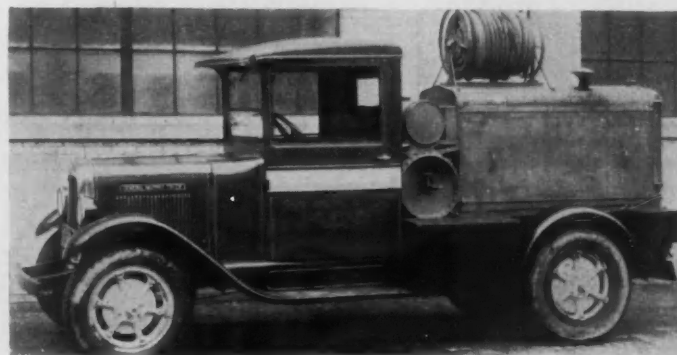
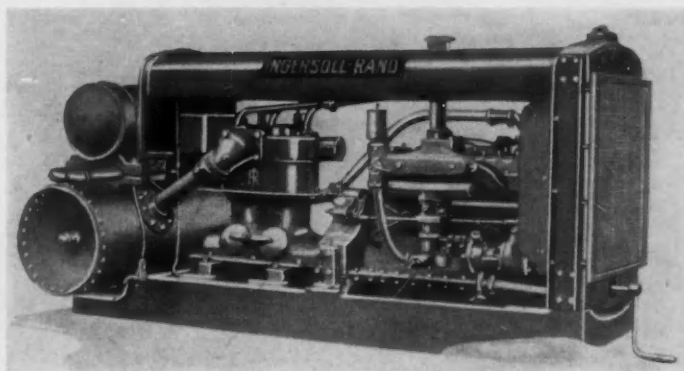
COMPRESSED air riveting hammers working on steel framework of a large building advertise their activity to all who will listen. Less noticeable than the noise of the hammers is the fact that they are saving much manual labor, and the latter characteristic applies also to many other pneumatic tools. An air drill puts a bolt hole in a heavy timber in a few seconds, a fraction of the time required to do the work by muscle power.

On many jobs of short duration the compressed air supply unit must be portable if full—or in fact any—advantage is taken of the labor-saving possibilities of pneumatic tools. One day after a new concrete road is opened to traffic, some one usually wishes to open the surface for a water connection, or similar purpose. Drilling and breaking concrete by hand is slow and costly and much time can be saved by use of air-driven tools, but it may take longer to get the air compressor to and from the job than to do the work by hand.

To meet these, and similar needs, portable air compressor outfits have been designed for mounting on truck chassis. They make it practicable to supply compressed air to operations lasting but a short time or to move the point of supply of air on a big job as often as may be desirable. This service is supplied by compressor rental service companies in many large cities.

Compressors are of single, double and four-cylinder types and usually are single-acting, which means that air is compressed on one side of the piston as the charge is compressed in a gasoline engine. Cylinders, pistons and crankshafts of compressors, and a supply of circulating cooling water, are similar to truck engine construction. Intake and exhaust valves, however, are commonly flat disks and they operate automatically without gears and tappets.

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AIR COMPRESSORS CARRIED ON TRUCKS USUALLY ARE EMBODIED IN SELF-CONTAINED UNITS COMPRISING AN ENGINE, COMPRESSOR, TANK, PRESSURE REGULATING DEVICE, HOSE AND REEL. COMPRESSORS ARE RATED ON BASIS OF DISPLACEMENT OF CYLINDERS IN CU. FT. PER MIN. OUTFITS MOUNTED ON 1½-TON TRUCKS RANGE FROM 60 TO 125 CU. FT. PER MIN. RATING

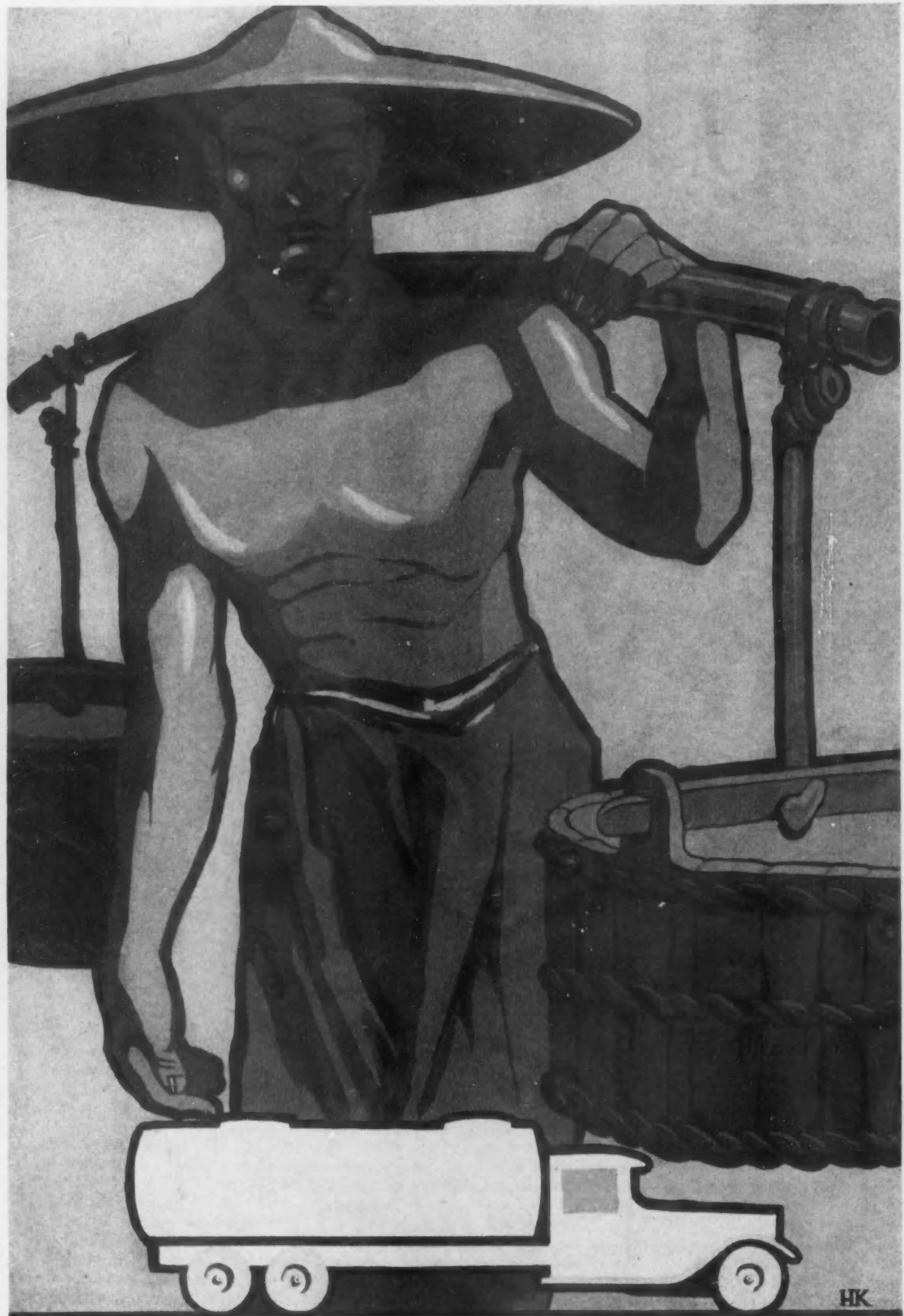
Unlike engines, compressors may have cylinder bores larger than the stroke. Pressures are of the order of 100 lb. per sq. in. and the relatively large bore does not impose undue stresses on bearings and crankshafts.

With intermittent use of pneumatic tools regulation of the compressor and engine is desirable. The engine is fitted with a governor to limit high speed and a secondary control connecting with the compressor may be fitted. This control unloads the compressor when tank pressure is at desired point, and the engine, while relieved of load, is brought down to idling speed. When the compressor starts pumping again the engine is speeded up to normal.

Any portable compressor of small capacity may be placed upon a truck for lighter service, such as spray painting.

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TANKS MEET LIQUID



HAULING PROBLEMS

Manufacturers

S. S. Albright Co., 1300 U St., Sacramento, Cal.
 Badger Body Mfg. Co., 1515 Cummings St., Omaha, Neb.
 Beck-Hawkeye Motor Truck Works, Cedar Rapids, Iowa.
 Boardman Co., Maple and Hawk Sts., Oklahoma City, Okla.
 Butler Mfg. Co., 7400 E. 13th St., Kansas City, Mo.
 Chas. W. Carll's Sons, Cole and Linwood Sts., Trenton, N. J.
 Columbian Steel Tank Co., 1519 W. 12th St., Kansas City, Mo.
 Cope Co., 27 Ball St., Irvington, N. J.
 Crown Motor Carriage Co., 2500 McPherson St., Los Angeles, Cal.
 Davis & Son, 309 W. Third St., Winona, Minn.
 Davis Welding & Mfg. Co., 1110 Richmond St., Cincinnati, Ohio.
 Detroit Trailer & Machine Co., 453 Beaufait St., Detroit, Mich.
 A. N. Eaton Metal Products, 13th and Willis Sts., Omaha, Neb.
 F & S Body Co., 3027 Commerce St., Dallas, Tex.
 Gilhool Body Works, 1227 Washington Ave., Scranton, Pa.
 Heil Co., 1142 Montana Ave., Milwaukee, Wis.
 Herman Body Co., 4420 Clayton Ave., St. Louis, Mo.
 Morrison Bros., 24th and Elm Sts., Dubuque, Iowa.
 Mullins Body & Tank Co., 47th Ave. and Rogers St., Milwaukee, Wis.
 National Steel Products Co., 1611 Crystal Ave., Kansas City, Mo.
 Niles Steel Tank Co., Niles, Mich.
 Pfaudler Co., Rochester Gas & Electric Bldg., Rochester, N. Y.
 Quaker City Iron Works, Tioga and Richmond Sts., Philadelphia, Pa.
 Richmond Engineering Co., 935 Brook Ave., Richmond, Va.
 Sharpsville Boiler Works Co., Sharpsville, Pa.
 H. Sior & Son, 245 Floyd St., Brooklyn, N. Y.
 Standard Steel Works, 16th and Howell Sts., North Kansas City, Mo.
 Steinke Bros. Mfg. Co., 1530 N. Adams St., Peoria, Ill.
 Robt. Thompson Co., 1015 S. Grand Ave., Los Angeles, Cal.
 Truck Equipment Co., 1791 Fillmore Ave., Buffalo, N. Y.
 Watkins Commercial Body Corp., 666 Genesee St., Buffalo, N. Y.
 Welbilt Body Co., 1400 E. Adams St., Los Angeles, Cal.
 Thos. Wright Co., 71 Golden St., Jersey City, N. J.
 Wyeth Co., 110 Columbia St., Newark, Ohio.
 Glasco Co., 20905 St. Clair Ave., Euclid, Ohio.

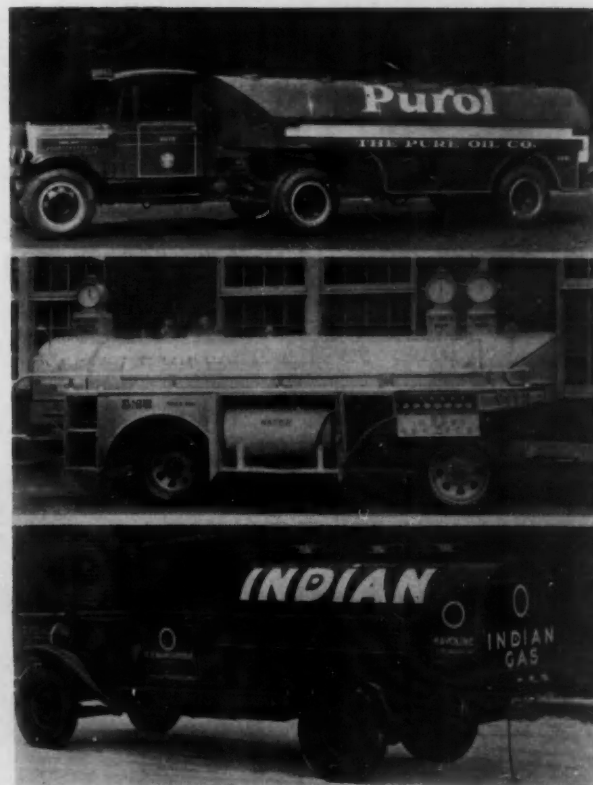
TANK bodies for distribution of oil and gasoline and hauling milk have been highly developed because these fields are large users of motor transportation. However, development has not been confined to these two fields, and tank bodies made of wood, steel, alloys and aluminum have been designed for a wide variety of uses. To still further conform to special needs, many of these bodies are lined with glass or other corrosion-resisting substances and others embody insulation or heating coils.

Growth of several lines of business has brought about an increase in use of tank trucks. Thousands of oil burners have been installed in private homes within the past year or two, and as a result there is need for wide-spread distribution of fuel oil in comparatively small lots. Fueling airplanes requires delivery of gasoline above the tank, and heavy oils flow reluctantly in cold weather, therefore special pumps, meters and heating units are incorporated in airplane fueling tank trucks. Chemical research is creating new industries, rayon production being one of the better known, and new demands for motor transportation by tank.

Oil companies, faced with a problem of distributing products over wide areas have established a large number of stations from which oil and gasoline are hauled to automobile filling stations in trucks. Bulk hauling to stations is by railroad tank car and by truck and trailer trains. Many of these trains carry the last pound of weight permitted by state laws. Semi-trailers of 2000-gal. capacity are not unusual and some carry as much as 3000 and even 5000 gal. Trains made up of a truck and two trailers or a semi-trailer and four-wheel trailers are employed to bring carrying capacity up to legal maximum.

Frame weight of a large semi-trailer is considerable and, as the tank itself is a strong structure, weight has been saved by designing the tank to serve as frame as well as

Variety of Materials and Linings
 Available to Suit Chemical
 Characteristics of Fluids



STEEL tanks, extensively used in the petroleum industry, are adapted to hauling many different liquids in large or small lots. They are carried by semi-trailers, four and six-wheel trailers and on truck chassis. Semi-trailer mounted tanks, at top, range from a few hundred gallons to several thousand gallons capacity. Special tank units, as shown in center view, which carry gasoline, several grades of oil and water, are popular at airports. Truck tanks are available for small or large loads, and are equipped with filling and emptying devices to suit individual needs. If separate compartments are desired, the tank may be built of several sections, called compartment tanks, assembled in a row.

PROSPECTS: AIRPLANE OPERATING COMPANIES, AIRPORTS, ALCOHOL PLANTS, CONTRACTORS, CESSPOOL CLEANERS, FUEL OIL DEALERS, INK MANUFACTURERS, MUNICIPALITIES, OIL COMPANIES, PAINT MANUFACTURERS, REFINERS, VEGETABLE OIL PLANTS.

body. Brackets are provided for mounting rear axle and springs, and the front of the tank is shaped to conform to the truck fifth-wheel.

Tank units of less capacity are not being overlooked while the giants are being developed. On the contrary several large oil companies, after extensive tests, adopted trucks and semi-trailers for hauling loads formerly carried by five-ton trucks. A typical outfit of this type is shown in the accompanying illustrations. Retailers of fuel oil, especially in small towns, are interested in tank trucks of comparatively small capacity.

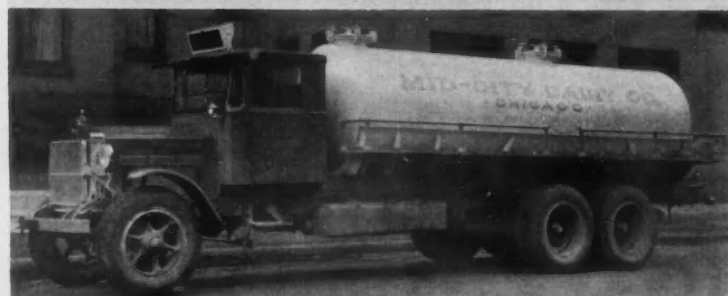
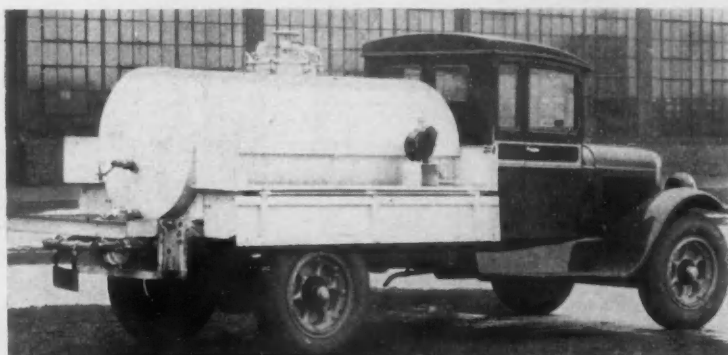
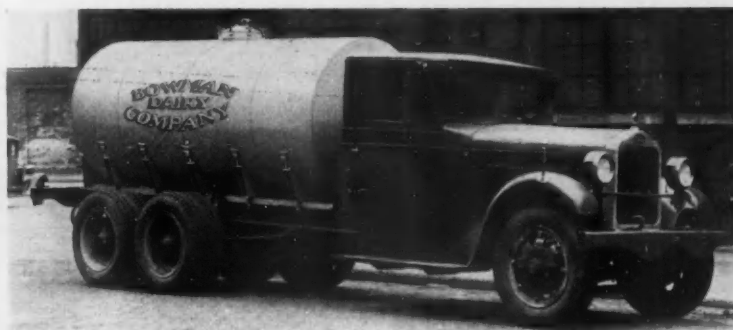
Hauling milk by truck has the important advantage of saving time between dairy barn and city distributing point, but several difficulties must be overcome before full advantage can be taken of this saving. Milk spoils quickly unless protected, and its taste is affected by even slight contamination by foreign matter. Souring of milk is caused by bacteria, the growth of which is retarded by cold. Milk is chilled at the farm and kept cool by insulation on the truck tank body. Agitation of milk aids in maintaining quality and many tank bodies are supplied with hand and power agitators.

Two methods of preventing contamination of milk by products of chemical action between tank material and liquid cargo are in common use. These are lining steel tanks and using tank materials which resist corrosion. Glass linings are applied, like enamels, to inside surfaces of steel tanks and coatings of tin also are employed. Nickel alloys and stainless steels may be used without linings.

Acids and various corrosive liquids used in chemical processes require special tanks. Linings and special metals used for milk tanks are applicable to acid and chemical hauling. Plants using these liquids incorporate machinery and piping designed to prevent corrosion or chemical action, and in most instances the same means will be embodied in tank bodies.

Cider and fruit juices require special handling to prevent spoiling of taste. Various linings and special metals used for milk hauling also are used for these liquids. Many cider makers and other beverage producers advertise that their products are stored in wood. To carry the idea throughout they may require wood tanks on trucks hauling for them. Wood tanks usually are round or elliptical, and are mounted directly on truck chassis on bolsters. Unlike most metal tanks, those made of wood may be shipped knocked-down and erected on the truck.

Weight of load of a tank truck is determined accurately in advance. As it is calculated from chassis carrying capacity minus weight of tank body, the latter figure attracts more attention than usually is the case. Aluminum



TANKS MEET LIQUID HAULING PROBLEMS

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LIQUIDS suitable for drinking and acids and chemicals are carried in tank bodies which resist chemical action by contents. The milk tank, at top, is glass-lined and insulated. Next below is an alloy tank with power pump and hand agitator. Third from the top is a two-compartment glass-lined tank for hauling milk and cream separately. Syrup tanks, shown in lower view, like others in this group, embody means for cleaning tank and piping.

PROSPECTS: CHEMICAL PLANTS, CIDER MAKERS, DAIRIES, FERTILIZER MANUFACTURERS, FRUIT JUICE BOTTLERS, VEGETABLE OIL PLANTS.

PUMPS—VARIOUS TYPES FOR DIFFERENT LIQUIDS

Manufacturers

American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., 1809 Century Ave., Grand Rapids, Mich.
Geo. D. Roper Corp., Rockford, Ill.
Elgin Corp., 501 Fifth Avenue, New York City
Heil Co., Milwaukee, Wis.
Jaeger Machine Co., 225 Dublin Avenue, Columbus, Ohio
Goulds Pumps, Inc., Seneca Falls, N. Y.
Municipal Supply Co., South Bend, Ind.

Prospects

Pumps may be used with any of the tank bodies described in the article on tank bodies on page 30 and the same prospect list applies to pumps. Pumps without tanks may be sold to contractors, municipalities, public utilities, road builders.

LIQUIDS of many sorts are carried in truck tank bodies, and sundry and various kinds of pumps are used to fill and empty these tanks. Some of the liquids are as thin as water, others as thick as molasses, many are corrosive, and a few are intended for human consumption. In addition to fluids carried on trucks, pumps are needed for jobs such as pumping out manholes and excavations.

Gear, centrifugal, plunger and diaphragm are the four types of pumps commonly carried on trucks.

Gear pumps comprise a pair of meshing gears in a case in which liquid is carried around from inlet to outlet in spaces between gear teeth. These pumps are built in a wide range of sizes.

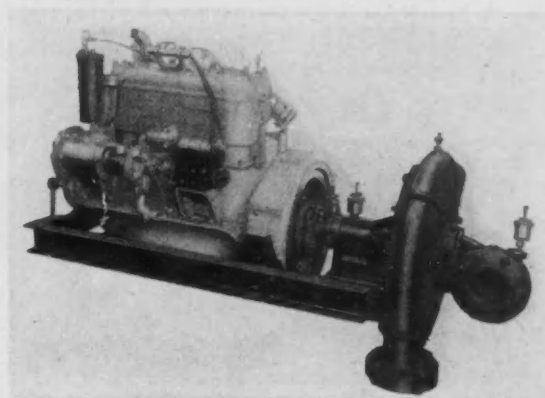
Centrifugal pumps embody an impeller made up of curved vanes and a casing. As ordinarily designed they have limited lifting capacity and must be primed when starting to lift. Priming is accomplished by drawing water into the pump by an auxiliary hand pump or filling pump and suction hose from the truck tank.

Plunger pumps are extensively used for stationary service, and truck models incorporate the same features of design. They are made for high or low pressure service and for handling freely flowing liquids.

Diaphragm pumps are used for lifting water from excavations and similar service, discharging by gravity from a spout. They are adapted for handling water containing clay and grit.

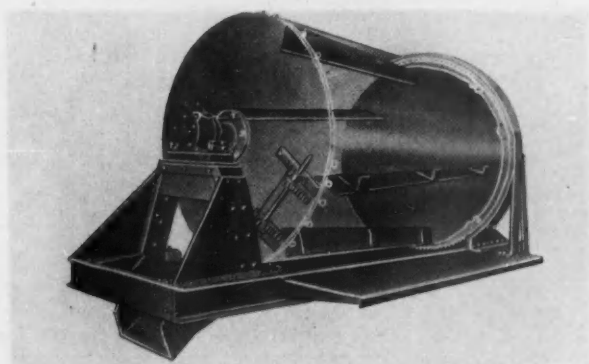
Either power take-off or separate engine may be used to drive pumps. Small pumps usually are driven from power take-offs. In street flushing, both types of drive are employed. A centrifugal pump mounted in front of the radiator and driven by an extension on the engine crankshaft is popular in the public utility field for emptying manholes. Pumps of this type may be carried on a light truck used by an inspector or on a heavier service truck.

Airplane fueling units are required to discharge gasoline several feet above the ground and a pump is required for this service. Operation of an engine is prohibited at many airports while filling an airplane tank and hand pumps are used. A storage battery operated pump was recently designed for this service.



THE CENTRIFUGAL PUMP, AT TOP, WHICH IS DRIVEN BY A SEPARATE ENGINE IS PRIMED BY THE HAND PUMP ON RUNNING BOARD WHEN NECESSARY. THE PUMP CAN BE USED TO FILL THE TANK OR DISCHARGE THROUGH FLUSHER NOZZLES. PUMP IN CENTER VIEW IS DESIGNED FOR MOUNTING ON FRONT OF CHASSIS AND IS DRIVEN BY CRANKSHAFT EXTENSION. THE SELF-CONTAINED OUTFIT ABOVE IS READY FOR MOUNTING ON CHASSIS, AS A UNIT.

CONCRETE BODIES—



THE PARIS TRANSIT CONCRETE MIXER, AT TOP, DUMPS TO DISCHARGE AND IS REVOLVED BY POWER TAKE-OFF. MANUFACTURER—TRANSIT MIXERS, INC., CALL BLDG., SAN FRANCISCO, CAL.

A SEPARATE ENGINE DRIVES THE CYLINDER OF THE RMC CARRIER, CENTER, WHICH MAY BE USED AS AGITATOR OR MIXER. CONCRETE IS DISCHARGED BY ELEVATING CYLINDER BY A HOIST. MANUFACTURER—GOOD ROADS MACHINERY CO., KENNETT SQUARE, PA.

DRIVEN BY THE TRUCK ENGINE, THE HIGHWAY MIXER, LOWER, IS REVERSED FOR UNLOADING. IT IS LOADED FROM THE SIDE. A SELF-CONTAINED GEARBOX AND CLUTCH CONTROLS THE DRUM, PROVIDING A LOW SPEED FOR MIXING ON THE WAY, A HIGHER SPEED FOR MIXING ON THE JOB AND A REVERSE FOR DISCHARGE. MANUFACTURER—HIGHWAY TRUCK MIXER CO., 12500 BERE A RD., CLEVELAND, OHIO

Many Types Gain Acceptance by Taking Advantage of the Economies of Large-Scale Central-Plant Production

HAULING concrete in small lots is a recent development in transportation of this building material which is of interest to truck dealers generally. Predictions were freely made during the recent Good Roads Show in Atlantic City that introduction of small lot hauling would bring about extension of central plant supply to smaller cities and towns. As small lots are also used to supplement deliveries by the common 2 and 3-yd. bodies it is obvious that a sales outlet of rich possibilities has been opened.

Bodies of 1 yd. capacity designed for mounting on 1½-ton trucks were much in evidence during the Road Show and they attracted much attention. A large number of truck manufacturers produce vehicles in this capacity range and their dealers now have another vocation in which to solicit business.

Dealers not familiar with conditions in the contracting field may wonder what difference it makes whether sand, cement and stone are hauled to a job and mixed on the spot or the materials are mixed at a central plant and hauled to the job. It happens to make a difference to the builders and contractors who are buying materials, or mixed concrete, and sellers of material must be guided accordingly.

REVOLVING AND FIXED

PROSPECTS

Bricklaying Contractors (for mortar)
 Bridge Builders
 Building Contractors
 Building Material Dealers
 Central Concrete Plants
 General Contractors
 Manufacturers having extensive plants
 Municipalities
 Road Builders
 Sewer Builders
 Stone Masons

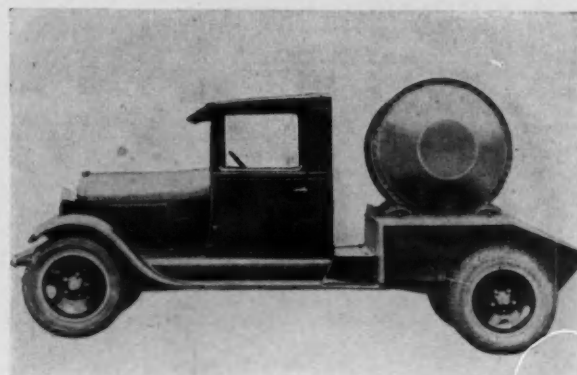
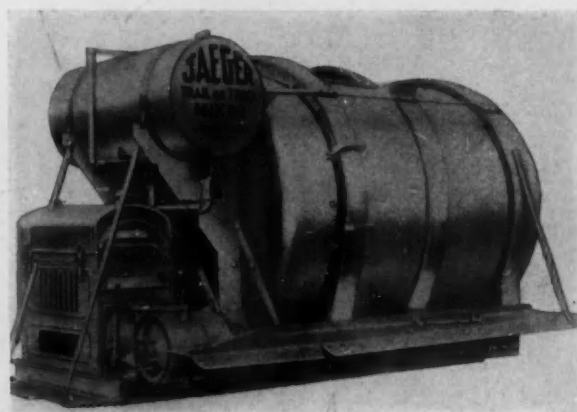


THE JAEGER MIXING BODY, AT TOP, IS A SELF-CONTAINED UNIT WHICH MAY BE CLAMPED ON TRUCK OR TRAILER CHASSIS. A SEPARATE ENGINE REVOLVES THE DRUM, AND LOAD IS DISCHARGED BY REVERSING DIRECTION OF ROTATION. MANUFACTURER—THE JAEGER MACHINE CO., COLUMBUS, OHIO

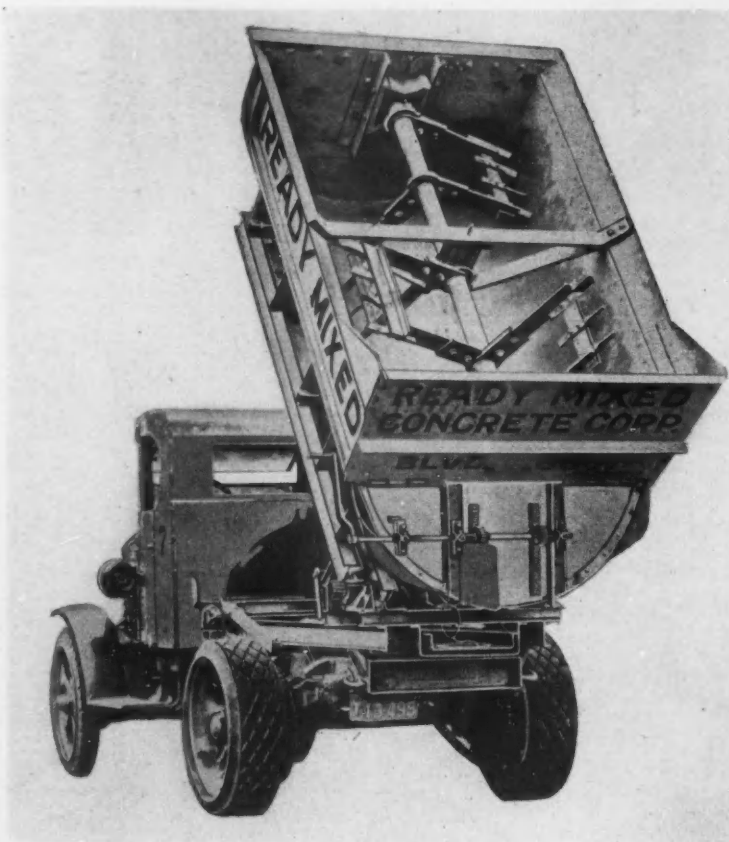
THE REVOLVING DRUM IS PLACED CROSSWISE OF THE CHASSIS IN THE LEE MIXER, CENTER. THE DRUM IS NOT SUPPORTED AT THE ENDS, BUT IS MOUNTED ON TWO PAIRS OF GROOVED GEAR WHEELS AND MAY BE LIFTED OFF FOR DISCHARGE AT A HIGH POINT. THE BODY IS FILLED THROUGH A GATE IN THE SIDE, WHICH DISCHARGES BY GRAVITY INTO A CHUTE WHEN OPENED AT THE BOTTOM. MANUFACTURER—LEE TRANSIT MIXER CO., INDIANAPOLIS, IND.

A BELT CONVEYOR WHICH DISCHARGES UP TO 7 FT. HEIGHT AND UP TO 16 FT. FROM REAR WHEELS IS EMBODIED IN THE STEPANIAN MIXER, LOWER. CONCRETE LEAVES THE BODY THROUGH A GATE AND DROPS ON THE CONVEYOR BELT. GRAVITY WATER TANKS ARE DETACHABLE AND THE BODY MAY BE USED FOR AGITATION OR MIXING OR HAULING DRY MATERIALS SEPARATELY. POWER IS TAKEN FROM THE TRUCK ENGINE. MANUFACTURER—STEPANIAN TRUCK MIXER CO., 900 HARTMAN BLDG., CLEVELAND, OHIO

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CONCRETE BODIES— REVOLVING AND FIXED

MECHANICAL AGITATION OF WET-MIX CONCRETE IS ACCOMPLISHED BY REVOLVING PADDLES IN STATIONARY BODIES OR BY REVOLVING THE BODY LIKE THE CYLINDER OF A CONCRETE MIXER. A STATIONARY BODY SHOWN AT LEFT IS A HALF-CYLINDER WITH EXTENDED SIDES. A SHAFT EXTENDS FROM END TO END AND PADDLES ATTACHED TO IT ARE ROTATED BY POWER TAKE-OFF. THE BODY IS EMPTIED BY A HIGH LIFT HOIST. MANUFACTURER—BLAW-KNOX CO., PITTSBURGH, PA.

A REVOLVING AIRTIGHT CYLINDER WITH SMOOTH INSIDE SURFACES AND NO PADDLES CHARACTERIZES THE BODY AT LEFT, BELOW. A ROLLING MOTION IS IMPARTED TO THE CONCRETE TO WORK AIR BUBBLES OUT OF THE MIXTURE, A CONDITIONING PROCESS WHICH IS CLAIMED TO ADD STRENGTH TO THE CONCRETE. THE BODY IS LOADED THROUGH AN OPENING IN SIDE OF THE CYLINDER AND IS EMPTIED THROUGH A GATE IN THE REAR END WHEN THE BODY IS RAISED BY A HOIST. A SEPARATE ENGINE, MOUNTED ON THE ASSEMBLY SUB-FRAME, REVOLVES THE CYLINDER. MANUFACTURER—CLINTON MOTORS CORP., READING, PA.

Cost of concrete delivered in a form on a construction job is a figure which is of vital interest to a builder. He has no particular liking for one method or another of getting the concrete where it is wanted, final cost is what counts.

Central plants produce concrete by large scale production methods. They are located on railroad sidings or river fronts and material is unloaded by buckets or conveyors with a minimum of hand labor. Serving a large number of customers these plants can be operated right through a business day with a minimum of waste time. Large volume makes it feasible to install accurate weighing and/or measuring machines to control quality of mixture in accordance with specifications. In winter time heated concrete is supplied at comparatively low cost because the size of the plant justifies the use of suitable equipment.

No elaborate calculation is needed to determine that such a central plant can produce concrete more efficiently than a lot of small plants scattered about on various jobs. On small jobs a mixer must be moved to position, materials dumped on the ground, a mixer gang organized, concrete mixed from time to time as the job progresses and finally the surplus material must be shoveled back into a truck and the mixer moved to the next job. In cities traffic conditions are making it more and more difficult to place material piles in the street.

Truck salesmen looking into the field find that there are several ways of delivering mixed concrete into a building form and that each of the methods has a host of determined and fluent advocates. Concrete may be mixed in a central plant and hauled by truck, or dry ingredients may be chuted in a body to be mixed on the way or on arrival at the job. Several

SLOPE ON THE BOTTOM OF A REVOLVING CONE-SHAPED CYLINDER DISCHARGES CONCRETE WITHOUT A HOIST IN CARRIER AT RIGHT. THE CYLINDER IS DRIVEN BY POWER TAKE-OFF OR SEPARATE ENGINE THROUGH A LARGE SPUR GEAR AT THE FRONT HEAD. THE ONLY OPENING IN THE CYLINDER IS A GATE IN THE REAR HEAD. FOR LOADING THE GATE IS STOPPED AT THE TOP AND IT IS PLACED AT THE BOTTOM FOR UNLOADING. MANUFACTURER—PARKE CONCRETE CARRIER, INC., 7 DEY ST., NEW YORK, N. Y.

A SEMI-CIRCULAR BOTTOM AND ROUNDED NOSE, MAKING A BATH-TUB SHAPE, REDUCES SETTLING AND ASSISTS DISCHARGE OF WET CONCRETE OF THE BODY SHOWN AT RIGHT, CENTER. MANUFACTURER—WOOD HYDRAULIC HOIST & BODY CO., DETROIT, MICH.

MOVABLE SIDES OF BODY AT LEFT, BELOW, ARE CLOSED AT THE BOTTOM, FORMING A V-SHAPED SPACE, FOR HAULING WET MIX. AT DESTINATION THE SIDES ARE MOVED OUTWARD TO VERTICAL POSITION, AT RIGHT, REDISTRIBUTING THE MIXTURE. MANUFACTURER—C. O. BARTLETT & SNOW CO., 6200 HARVARD AVE., CLEVELAND, OHIO

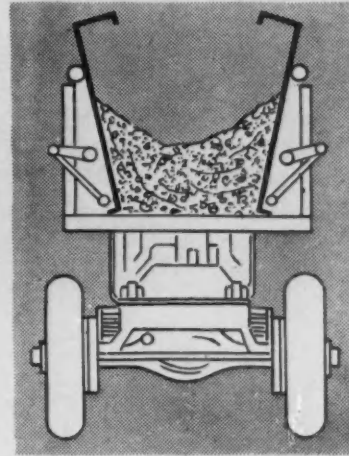
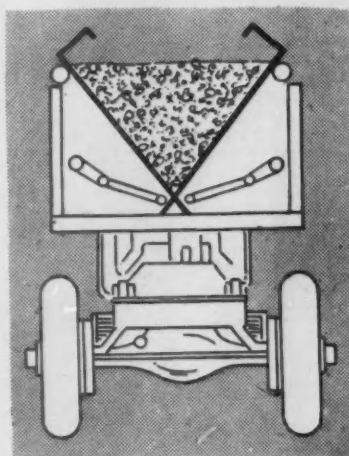
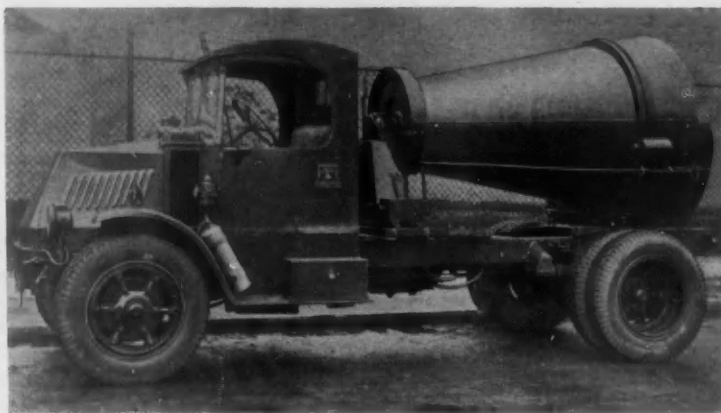
types of bodies are available for each method of handling concrete and each type has ardent supporters.

The situation apparently holds small promise for a neutral, like a truck salesman, but actually it is not as bad as it seems. Without efficient truck transportation central concrete plants simply could not exist. With this important point granted without argument, truck salesmen may devote themselves wholeheartedly to selling chassis and equipment suited to individual needs.

Wet concrete tends to separate and settle when carried in an ordinary dump body. It is to prevent this segregation that different types of bodies have been developed and methods of handling concrete adopted. Bodies of special shape are employed to retard segregation, mechanical agitators are used to keep the concrete stirred on the way to the job and mixer bodies carry dry aggregate and mix it on the way to, or on arrival at, the job.

Mixer type bodies are actually concrete mixers designed for mounting on truck frames. A large majority comprise revolving cylinders, with paddles or blades inside to bring about thorough mixing, and tanks for water. Measured batches of aggregate are chuted into the body at a loading plant and dry mixing continues during the journey. Water is admitted to the load at a time to provide the proper amount of mixing before discharge. Obviously concrete can be delivered at any desired distance by outfits of this type. Mixer bodies can be used to agitate wet-mix concrete and several makers stress the dual ability of bodies of their manufacture.

The usual ways of discharging concrete from mixer bodies are by re-



versing direction of rotation of the cylinder or tipping by means of a hoist. Running a cylinder backward causes the blades to sweep concrete out through an opening in the rear head of the cylinder. Both separate engine and power take-off drives are used for mixer bodies. Examples of reversing and dumping bodies and two types of drive are shown in accompanying illustrations. Variations of these types are also shown.

DUMP BODIES

ADVANCE WITH TRUCK DESIGN



1



2

COAL

BODIES WITH FLARES ARE THE RULE IN THIS SERVICE. WHILE THESE BODIES ARE OBTAINABLE WITH HAND OR POWER HOIST, THE LATTER EQUIPMENT IS MORE COMMON TODAY, ESPECIALLY FOR BODIES OF TWO-TON CAPACITY AND OVER. MANY FEATURES ARE INCORPORATED IN THE DESIGN OF COAL BODIES TO SIMPLIFY DELIVERY PROBLEMS. THESE INCLUDE SPECIAL HIGH-LIFT HOISTS FOR CHUTING OVER LAWNS, SPECIAL UNDERBODY CONSTRUCTION FOR ACCOMMODATING TELESCOPING CHUTES (FIG. 1), CHUTE OPENINGS IN THE FLOOR, SIDE OR TAIL-GATES, SWINGING PARTITIONS (FIG. 2) FOR DIVIDING THE BODY INTO COMPARTMENTS FOR SPLIT DELIVERIES, SIDEBOARD EXTENSIONS, ETC. THE CAPACITY OF THE BODY DEPENDS ON LOCAL CONDITIONS AND WHETHER THE BUSINESS IS RETAIL OR WHOLESALE. IN RETAIL BUSINESS, THE CAPACITY MOST GENERALLY USED RANGES FROM 1 TO 3 TONS AND IN WHOLESALE FROM 3 TO 5 TONS. MANUFACTURERS: SEE REFERENCE NUMBERS:

1, 9, 10, 11, 14, 21, 22, 23, 24, 27



Manufacturers of Dump Bodies

Reference numbers given below correspond with numbers appearing under each type of body described in this review, and serve to identify them.

Reference Number	Name and Address
1.	Auto Truck Equipment Co., 7501 Penn Ave., Pittsburgh, Pa.
2.	Auto Truck Steel Body Co., 3028 Carroll Ave., Chicago, Ill.
3.	Anthony Co., Streator, Ill.
4.	Best Body Corp., Coatesville, Pa.
5.	Commercial Shearing & Stamping Co., 1775 Logan Ave., Youngstown, Ohio
6.	Easton Car & Construction Co., Easton Pa.
7.	Differential Steel Car Co., Findlay, Ohio
8.	Galion Allsteel Body Co., 500 S. Market St., Galion, Ohio
9.	Fitz Gibbon & Crisp, 467 Calhoun St., Trenton, N. J.
10.	Hercules Products, Inc., Evansville, Ind.
11.	Heil Co., 1142 Montana Ave., Milwaukee, Wis.
12.	Highway Trailer Co., Edgerton, Wis.
13.	Hockensmith Wheel & Mine Car Co., Penn, Pa.
14.	Hughes-Keenan Co., Wayne & Newman Sts., Mansfield, Ohio
15.	Jorgenson Dump Body Co., 47th Ave. and Rogers St., Milwaukee
16.	Lee Trailer & Body Co., Plymouth, Ind.
17.	Marion Steel Body Co., Monroe St., Marion, Ohio
18.	Mayer Body Corp., 6459 Frankstown Ave., Pittsburgh, Pa.
19.	Martin-Parry Corp., W. Market St., York, Pa.
20.	McNamara Bros., Westport, Baltimore, Md.
21.	Moore Body Co., Schiller & Division Sts., Reading, Pa.
22.	New York Central Iron Works, Hagerstown, Md.
23.	Rodenhausen Wagon Wks., 9th and Jefferson Sts., Phila., Pa.
24.	St. Paul Hydraulic Hoist Mfg. Co., 292 Walnut St., St. Paul, Minn.
25.	Superior Body Co., Branson and 18th Sts., Marion, Ind.
26.	Waterloo Bodies, Inc., Waterloo, N. Y.
27.	Wood Hydraulic Hoist & Body Co., Detroit

IMPROVEMENTS in dump body design during the last few years are no less remarkable or important than the changes effected in truck chassis design. Power-operated dump bodies have been developed in lighter capacities; body builders in striving to achieve light body weight are employing new designs, using strong and light weight materials, or both; a greater number of special dump bodies for special purposes are available; the welding process of assembling has grown in favor, bringing the advantages of light weight, strength and water-tight construction; changes and improvements are noted in understructures, sideboards, posts and bracings; tail-gate and control mechanisms show refinements, etc.

TURN TO PAGE 40, PLEASE

GARBAGE

WHILE BODIES OF 1 TO 2½ TON CAPACITY ARE MOSTLY IN USE, LARGER CAPACITIES ARE AVAILABLE. ON ACCOUNT OF THE LIQUID CONTENT OF GARBAGE THE REAR ENDS OF CONVENTIONAL GARBAGE BODIES ARE NOT FITTED WITH TAIL-GATES BUT ARE MADE TO SLOPE UPWARD AT AN ANGLE OF ABOUT 20 DEGREES TO THE HORIZONTAL (FIG. 5). THIS CONSTRUCTION ELIMINATES COMPLICATIONS IN WATER-TIGHTENING STANDARD TAIL-GATES. SOME TYPES COMBINE THE SLOPING REAR WITH A TAIL-GATE (FIG. 4). ALTHOUGH GARBAGE BODIES ARE MOSTLY OF THE OPEN TOP TYPE, COVERING SUCH AS METAL PLATES, TARPULIN OR CANVAS ROLLED OVER BOWS ARE AVAILABLE. SPECIAL BODIES (FIG. 3) ARE DESIGNED FOR SANITARY REMOVALS. REFUSE IS DUMPED INTO SIDE CONVEYOR WHICH IN TURN DUMPS INTO THE BODY AT THE TOP.

PROSPECTS: MUNICIPALITIES AND CONTRACTORS. MANUFACTURERS: SEE REFERENCE NUMBERS: 1, 2, 3, 6, 8, 9, 10, 11, 14, 17, 19, 22, 23, 24, 27

GRAVITY

GRAVITY DUMPERS (FIG. 6) ARE CONFINED MAINLY TO 1 AND 1½ YD. CAPACITIES. THESE BODIES ARE SHORT AND LIGHT WEIGHT IN CONSTRUCTION AND SO BALANCED ON THE TRUCK CHASSIS THAT WHEN RELEASED THE WEIGHT OF THE LOAD AUTOMATICALLY TIPS THE BODY. FLOOR AND SIDES OF THESE BODIES ARE SOMETIMES ONE-PIECE CONSTRUCTION WITH ROUNDED CORNERS. REMOVABLE TOP SIDE-BOARDS ARE FURNISHED

PROSPECTS: CONTRACTORS (ROAD WORK, PAVEMENT, BUILDING)
MANUFACTURERS: SEE REFERENCE NUMBERS: 3, 8, 14, 15, 16, 25, 26





7



8



9

DUMP BODIES ADVANCE WITH TRUCK DESIGN

April, 1930

SPECIAL

SEVERAL SPECIAL TYPES OF DUMP BODIES ARE AVAILABLE FOR HANDLING LARGE BOULDERS AND STONES. CROSS MEMBERS OF THE UNDERSTRUCTURE OF SUCH BODIES ARE CLOSELY SPACED AND FLOORS ARE MADE OF EXTRA THICK STEEL PLATE (FIG. 7). WOOD-CUSHIONED FLOORS ARE ALSO PROVIDED TO ALLOW THE BODY TO ABSORB THE SHOCK OF DROPPED BOULDERS. DUMP BODIES DESIGNED FOR HAULING LIGHT BULKY MATERIAL SUCH AS SAWDUST, TRASH, ETC., ARE MOSTLY OF THE LIGHT-WEIGHT AND BOX-LIKE CONSTRUCTION (FIG. 8). FOR HANDLING ITEMS SUCH AS LUMBER, BAGS, ETC., PLATFORM-STAKE DUMPS ARE AVAILABLE (FIG. 9)

PROSPECTS: SAME AS THOSE LISTED UNDER DIRT, SAND, GRAVEL BODIES PLUS CEMENT DEALERS, HOUSE WRECKERS, LUMBER DEALERS

MANUFACTURERS: SEE REFERENCE NUMBERS: 1, 2, 6, 9, 11, 17, 22, 23, 24, 27

Truck dealers and salesmen who keep informed on these improvements are equipped to do better transportation selling jobs.

The various types of dump bodies on the market are generally grouped according to the manner they dump, namely, to the rear, to either side or three way. Most bodies, of course, come under the first classification. Bodies in the last two divisions are used in operations where it is more convenient to dump from the side or where the nature of the service demands the still greater flexibility of dumping any of three ways.

Dump bodies are used mostly for hauling dirt, rock, brick, sand gravel, dry aggregate, coal, ashes, cinders, trash, garbage, asphalt and metal ores. Bodies furnished for these various services are offered in capacity ranges from 1 to 10 cu. yds. and in weight capacities ranging from 1 up to 7½ ton. They are dumped by gravity, power or manually operated mechanism. Gravity dumpers are confined mainly to 1 and 1½-yd. capacities. Bodies equipped with power or manually operated hoists are available in all capacities. For more details on hoist equipment, see article starting on page 50.

*The Commercial Car Journal
and Operation & Maintenance*

TWO AND THREE WAY

THESE BODIES ARE EMPLOYED WHERE IT IS MORE CONVENIENT TO DUMP FROM EITHER SIDE OR FROM EITHER SIDE AS WELL AS FROM THE REAR. THE THREE-WAY DUMP ILLUSTRATED (FIG. 11) ACTUALLY HAS THREE GATES, ONE ON EACH SIDE, ALL OF WHICH MAY BE LAID FLAT. THE TAIL-GATE IS DOUBLE-ACTING AND IS EQUIPPED WITH A RELEASE FOR SPREADING. DIRECTION OF DUMP IS CONTROLLED FROM THE CAB. THE ALL-STEEL STAKE-PLATFORM DUMP SHOWN IN FIG. 10 IS A TWO-WAY MANUALLY OPERATED DUMP BODY. THIS BODY IS MOVED TO EITHER SIDE UNTIL IT REACHES A CERTAIN POINT AND THEN THE WEIGHT OF THE BODY AND LOAD ASSISTS IN THE DUMPING. THE SAME DUMPING MECHANISM CAN BE USED TO ADVANTAGE FOR LOADING AS WELL AS UNLOADING

PROSPECTS: SAME AS THOSE LISTED UNDER DIRT, SAND GRAVEL BODIES AND UNDER SPECIAL

MANUFACTURERS: SEE REFERENCE NUMBERS: 4, 5, 7

DIRT, SAND, GRAVEL

EXCLUSIVE OF THE GRAVITY TYPE, DUMP BODIES USED IN THIS SERVICE ARE OF THE STRAIGHT SIDE TYPE (FIG. 12) AND OF THE STRAIGHT SIDE TYPE WITH ROUNDED SIDE CORNERS (FIG. 13). THE LATTER ARE THE MORE COMMON IN THE LIGHTER CAPACITIES WHILE THE STRAIGHT SIDE TYPES ARE AVAILABLE IN ALL CAPACITIES. SOME STRAIGHT SIDE TYPE BODIES TAPER OUTWARD AT THE REAR TO FACILITATE CLEAN DISCHARGE. STRAIGHT SIDE TYPES ARE OFFERED WITH OR WITHOUT FLARES AT THE TOP OF SIDES, WITH OR WITHOUT RUNNING BOARDS, SWINGING PARTITIONS AND OTHER EXTRAS (FIG. 14). REMOVABLE TOP SIDE-BOARDS ARE FREQUENTLY FURNISHED FOR BODIES USED IN EXCAVATION WORK. WHEN BATTERED OUT OF SHAPE BY STEAM SHOVELS, THEY CAN BE REPLACED, WHICH IS LESS COSTLY THAN REPLACING A COMPLETE BODY. ALL ARE FURNISHED WITH EITHER SINGLE OR DOUBLE ACTING TAIL-GATES. BODIES VARY IN MANY DETAILS OF CONSTRUCTION AND REFINEMENT. NOTE THE FOLLOWING: DOUBLE-ACTING TAIL-GATE, METHOD OF GATE CONTROL, UNDERSTRUCTURE, SHEET STEEL WRAPPED RUNNING BOARDS, ROUNDED RUNNING BOARD CORNERS, REINFORCED TAIL-GATE POSTS, EXTENSION BOARD SOCKETS, BRACING, HIGH HEADERS AND SWINGING PARTITIONS. FOR OPERATORS WHO HAVE NEED FOR EQUIPMENT TO PERFORM IN A VARIETY OF SERVICES AN ALL-PURPOSE BODY IS AVAILABLE. THIS BODY HAS REMOVABLE SIDES AND A DOUBLE-ACTING TAIL-GATE. WITH THE SIDES IN PLACE AND THE GATE HINGED AT THE TOP, THE BODY CAN BE USED FOR HANDLING LOOSE MATERIAL. BY REMOVING THE SIDES AND LOWERING THE TAIL-GATE, LEVEL WITH THE FLOOR, THE BODY MAY BE USED FOR HAULING BARRELS, BAGS, SHINGLES, TILE, ETC.

PROSPECTS: ASPHALT DEALERS, BRICK MANUFACTURERS, CONTRACTORS (EXCAVATING, GRADING, MASON, OPERATION, PAVEMENT, ROAD, SEWER), FARMERS, GRAVEL DEALERS, LANDSCAPE GARDENERS, MANUFACTURERS (RAW MATERIALS AND WASTE), MINE OPERATORS, MUNICIPALITIES, SAND DEALERS, RAILWAYS, STONE DEALERS, TILE DEALERS, TRASH COLLECTORS, UTILITIES

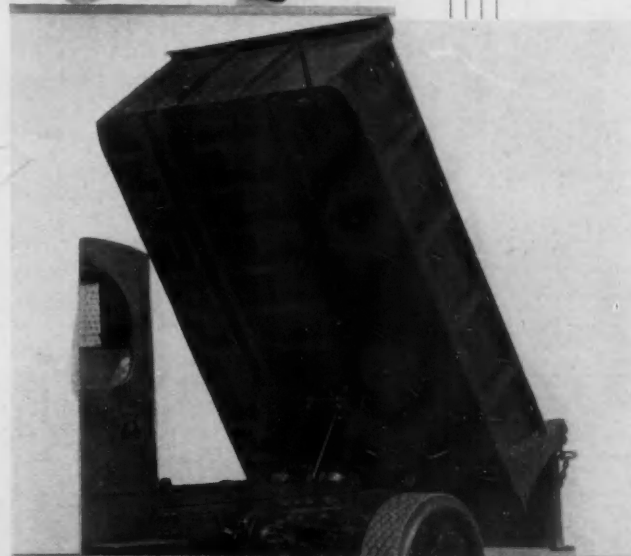
MANUFACTURERS: SEE REFERENCE NUMBERS: 1, 2, 3, 8, 9, 10, 11, 14, 16, 17, 19, 23, 24, 27



10



11



12



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14



LIFTING AND PULLING

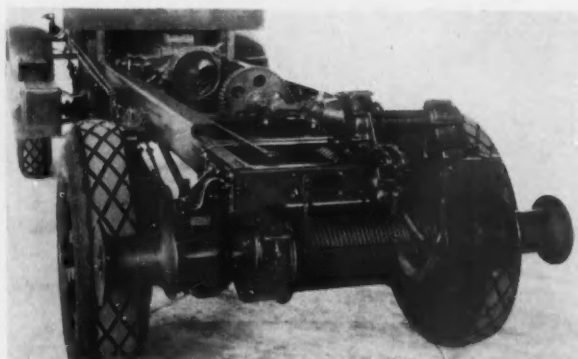


FIG. 1—THIS HEAVY-DUTY WINCH WITH DOUBLE NIGGERHEADS IS MOUNTED BENEATH REAR OF CHASSIS FRAME INSTEAD OF AT REAR OF CAB
FIG. 2—TRUCK CRANE WITH HAND-ADJUSTABLE SWINGING BOOM

FIG. 3—LIFTING PULLEY ON SWINGING BOOM MAY BE MOVED IN OR OUT ALONG BOOM

FIG. 4—A SELF-CONTAINED CRANE WITH SEPARATE ENGINE AND WINCHES FOR OPERATION OF LIFTING LINE AND BOOM

FIG. 5—DEMOUNTABLE POLE DERRICKS ARE POPULAR IN THE PUBLIC UTILITY FIELD

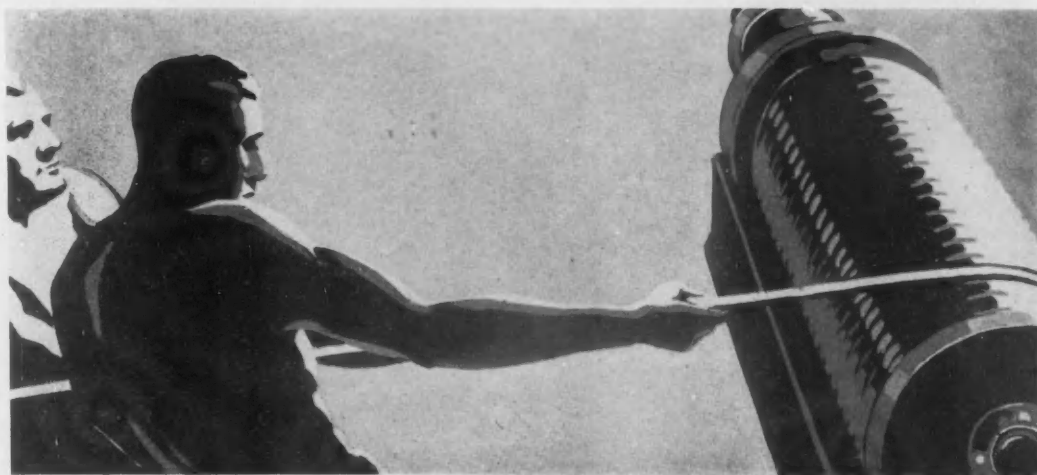
Makers of Capstans, Cranes, Derricks and Winches

Auto Truck Body Co., 3028 Carroll Ave., Chicago, Ill.
Air Compressor & Equipment Co., 286 Genesee St., Buffalo, N. Y.
Bay City Foundry & Machine Co., 1613 S. Water St., Bay City, Mich.
Batavia Metal Products Corp., Batavia, N. Y.
Braden Steel & Winch Co., N. Madison St., Tulsa, Okla.
Browning Crane Co., 152nd and Waterloo Rd., Cleveland, Ohio
Channon Corp., 223 W. Erie St., Chicago, Ill.
Erie Hoist Co., 2000 Holland St., Erie, Pa.
Highway Trailer Co., Edgerton, Wis.
Hobbs Mfg. Co., 605 N. Main St., Ft. Worth, Tex.
McDonald Motors, Inc., 5th and Harrison Sts., San Francisco, Cal.
Manley Mfg. Co., Bridgeport, Conn.
Mead-Morrison Mfg. Co., 446 Prescott St., East Boston, Mass.
Muskogee Iron Works, Frankfort and Spaulding Sts., Muskogee, Okla.
D. Round & Sons, Penna. R. R. and Henry Rd., Cleveland, Ohio
Gustav Schaefer Co., 4180 Lorain Ave., Cleveland, Ohio
Silent Hoist Winch & Crane Co., 762 Henry St., Brooklyn, N. Y.
Stimmel Winch & Machine Works, 518 W. 37th St., New York City
Universal Crane Co., E. 28th St. and Fulton Rd., Lorain, Ohio
Utility Supply Co., Clintonville, Wis.
Western Iron & Foundry Co., 702 E. 2nd St., Wichita, Kan.

Prospects

Riggers
House Movers
General Haulers
Auto Wreckers
Draymen
Gas Companies
Electric Companies
Telephone Companies
Water Works
Contractors
Mining
Paving Contractors
Road Builders
Sewer Contractors

Mason Contractors
Railway Companies
Piano Movers and Dealers
Furniture Movers
News Print Hauling
Nurserymen
Oil Pipe Lines
House Wreckers
Warehousemen
Bridge Builders
Fire Departments
Police Departments
Park Commissions
Boiler Makers
Well Drillers



DEVICES SAVE LABOR

Winches, Derricks and Cranes Mounted on Trucks Perform Countless Arduous Jobs

A TUG-OF-WAR with 150 men on a side would attract a crowd at any athletic meet. But any foreman of a line construction gang would be glad to put his truck winch in competition with a tug-of-war team of 150 men or more. With no more effort on his part than raising his right hand above his right shoulder, and rotating his wrist he could bring into action power enough to drag them across the line exhausted.

While there is no record of any such contest, truck winches are relieving muscles of men of strain and effort in countless numbers of jobs every day. Engine power directed by man-power performs a multitude of tasks in less time, and at less cost than by man-power alone. In addition mechanical-power does many jobs which are outside the scope of manual labor.

Winches are, perhaps, most versatile of power devices mounted upon trucks. A rigger makes use of their pulling ability on all of his work, an electric power company uses the same sort of power for pulling cables, rigs up a derrick

for setting poles and placing transformers, gas and water companies hitch winches to cranes, and swing large sections of pipe into place with ease. The easiest way to put a piano in many modern apartments is through a window, and warehousemen and movers install winches on moving vans for this and similar jobs. Landscape gardeners pull trees and shrubs and place garden stoneware with cranes and winches mounted on the same trucks which haul these objects to and from country estates of customers.

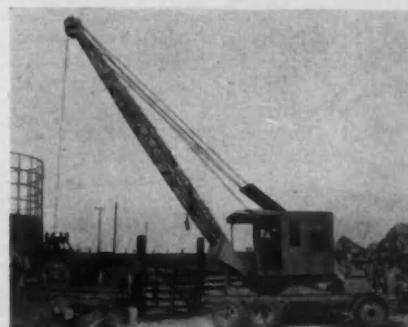
Winches are divided into two general groups, capstan winches called capstans, and drum winches commonly referred to as winches. There are many variations in both capstans and winches to adapt them to different uses.

Capstans are smooth steel spools, which handle manila rope either for single line or with blocks, or pulleys. In use the capstan is revolved by engine power and several turns of rope are wound around the center of the spool, with one end of the rope extending to the weight to be moved, and the

3



4



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other held by the operator. To raise the weight the operator pulls the rope, which tightens the coils about the capstan, and gives a powerful self-energizing action, and consequently a strong pull on the other end of the rope. Very little effort is required for one man to handle a rope, pulling up to capacity of the capstan.

Winding spools of capstans may be placed in vertical or horizontal position. Vertical capstans usually are placed on platform bodies directly in rear of cabs, from which position lines may be extended to the rear for direct pulls, and for loading and unloading heavy weights, or to either side. Horizontal capstans are placed on the side of a truck, and may be mounted out of the way under the overhanging floor of a platform body. Lines are extended either forward or to the rear from this position, and are extended at an angle by use of blocks.

Winches of the drum type are spools on which flexible cable metal is wound evenly, just like a spool of sewing thread. One end of the cable is fastened to the winch, and the other end is attached to the weight or object to be moved. As a strong pull at comparatively slow speed is desired on a winch line, the drive must provide a considerable reduction and this is furnished, in most designs, by worm gear. This gearing is irreversible, or nearly so, and the line will support a load in position as soon as power is shut off. A worm shaft brake may be added to prevent "creeping" of the cable, when a heavy load is to be supported.

Obviously power reverse is used to unwind cable on a worm-driven winch. If heavy weights are lowered, as well as lifted, this reverse operates at the same speed as the pulling speed. However, a fast reverse is desirable on jobs where a weight is lifted but not lowered, and the cable is played out again for another lift. This fast reverse may be obtained from a two-speed power take-off or by mounting the drum on a sleeve on the drum shaft, and connecting it thereto by a clutch.

Many jobs call for lifting heavy objects and swinging them into position at the same time, and for this purpose a capstan type of spool called a niggerhead is mounted on the end of the drum shaft. This auxiliary may be used as a capstan alone or in connection with the winch. A jaw clutch is provided on the drum so the niggerhead can be operated independently. By use of extension shafts and outboard bearings, niggerheads can be located on one, or both, sides of cabs with winches mounted directly in rear of cabs.

Controls for winches usually are carried forward to the cab. The engine clutch starts and stops the winch drum after the power take-off lever is shifted to "On" position. Reverse may be in the power take-off or in the winch drive. Capstans revolve all the time they are in use and they do not require control for every lift.

Friction drum winches have friction type clutches which are engaged for lifting. Continuous power is supplied by a take-off and the drum is revolved by engaging the clutch. To hold a load in position a

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LIFTING AND PULLING DEVICES SAVE LABOR

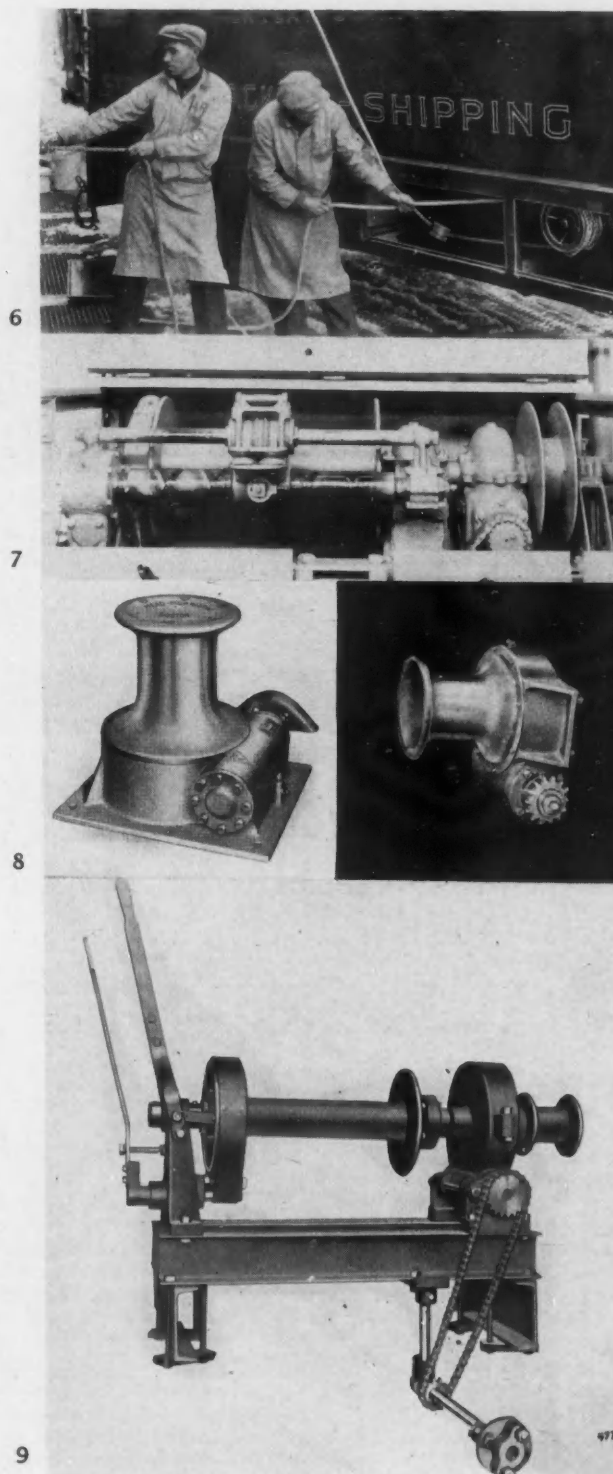


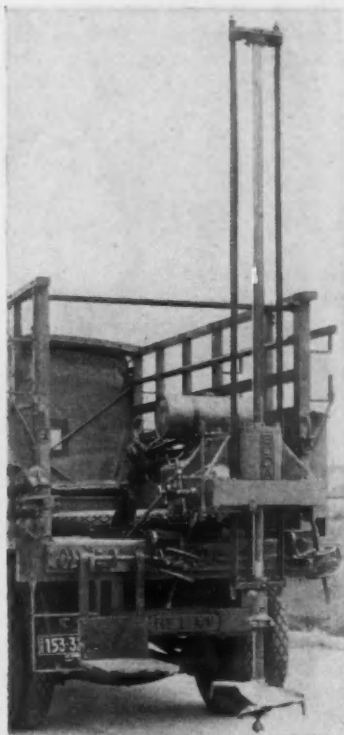
FIG. 6—A HORIZONTAL WINCH ON A MOVING VAN IS USED FOR LIFTING PIANOS TO WINDOWS ON UPPER STORIES

FIG. 7—ROPE GUIDE INSURES SMOOTH WINDING OF CABLE, LIKE A SEWING MACHINE BOBBIN WINDER

FIG. 8—VERTICAL CAPSTAN AT LEFT, HORIZONTAL CAPSTAN AT RIGHT

FIG. 9—A WINCH WITH BAND BRAKE AND SINGLE NIGGERHEAD

EARTH-BORERS MAKE HOLE DIGGING EASY



THE BUDA-HUBRON BORER IS OFFERED IN TWO TYPES, ONE USES THE TRUCK ENGINE FOR POWER, THE OTHER IS A COMPLETE UNIT IN ITSELF, USING A SEPARATE ENGINE MOUNTED DIRECTLY ON THE DRILL FRAME. THE LATTER, WHICH IS MORE POPULAR, IS MOUNTED IN A FRAME, WHICH IN TURN IS MOUNTED IN A SUB-FRAME BOLTED TO THE TRUCK FLOOR BY FOUR BOLTS. POWER FROM A TWO-CYLINDER OPPOSED AIR-COOLED ENGINE IS TRANSMITTED TO THE DRILL SPINDLE THROUGH A TRAIN OF BEVEL AND SPUR GEARS GIVING A RATIO OF 100 TO 8. CONTROLS CONSIST OF TWO LEVERS. LOWERING AND LIFTING IS ACCOMPLISHED BY ROLLER CHAINS, WHICH SERVE AS FLEXIBLE RACKS. THE CLUTCH IS DESIGNED TO SLIP UNDER SHOCK. DRILL SPINDLES ARE FURNISHED IN VARYING LENGTHS UP TO 20 FT. AND DRILLS ARE MADE IN VARIOUS SIZES FROM 1½ TO 24 IN. THE OTHER MODEL IS SIMILAR TO THE SELF-CONTAINED UNIT EXCEPT THAT POWER IS TAKEN FROM THE TRUCK TRANSMISSION THROUGH UNIVERSALS. MANUFACTURER: THE BUDA CO., HARVEY, ILL.

*The Commercial Car Journal
and Operation & Maintenance*

TO expedite and lower the cost of digging holes for poles in telephone, telegraph and power construction work, or in general digging service, the automotive industry has developed earth-boring machines for mounting on trucks, trailers or tractors. Because of the relatively small diameter of pole holes, which are from 16 to 24 in. in diameter and from 4 to 8 ft. deep, it is very difficult to dig them manually, especially when sandstone, shale or field stones are encountered. An earth-borer, however, can do easily in a few minutes a job which would take several arduous man-hours by hand.

Earth-borers are available in two types. One type is built into the rear end of the truck chassis, although the boring mechanism can be removed when not in use; the other is mounted on an independent frame and may be clamped on the rear of any truck. Power to operate the device is obtained either from the truck engine through a power take-off, or from an independent powerplant mounted in unit with the drill.

Earth-boring differs somewhat from ordinary boring work, because earth loosened by the augur does not climb the hole, but must be lifted out. As a consequence, the operation of digging a hole with an earth-borer entails a frequent alternation of boring and lifting. By raising the spindle shaft, which continues to revolve, earth is scattered as it reaches the mouth of the hole.

BUILT IN THE TRUCK CHASSIS, THIS EARTH-BORER OBTAINS ITS POWER FROM A POWER TAKE-OFF. THE BORING MECHANISM, WEIGHING 2000 LB., IS DETACHABLE AND MAY BE REMOVED WHEN NOT NEEDED BY TWO MEN IN ABOUT ½ HR., LEAVING THE PLATFORM FREE FOR OTHER SERVICE. THE OPERATING MECHANISM IS ENCLOSED IN AN OIL-TIGHT CASE. THE DEVICE IS OPERATED BY TWO LEVERS AT THE REAR OF THE TRUCK, ONE TO SPIN THE AUGUR AND THE OTHER TO RAISE OR LOWER THE SHAFT. A FEATURE IS THE UNIVERSAL POSITION OF THE RACK-BAR, WHICH ENABLES THE OPERATOR TO SET IT TO BORE AT ANY CONSIDERABLE ANGLE FROM THE VERTICAL OR TO ALIGN THE BAR VERTICALLY IN CASE THE TRUCK IS NOT RESTING ON A HORIZONTAL PLANE. MANUFACTURER: UTILITY SUPPLY CO., CLINTONVILLE, WIS.



April, 1930



BUSINESS

THERE'S a wise-crack going the rounds to the effect that "if all business condition broadcasters were laid end to end it would be a good thing for business." That's kind of tough on us because we've got nothing but business on the brain, and it's going to come off if it takes all of this page.

The vital statistics of the first two months of this year show that in the matter of production and foreign sales the truck industry is not quite the healthy patient it was during the same months of record 1929. Production was off 26 per cent and exports were off 42 per cent. But domestically the figures show a remarkably satisfactory situation, all things considered. New truck registrations show that 61,900 trucks were sold in the opening pair of months, as compared with 62,422 last year. This is less than one per cent off.

From the standpoint of the domestic trade there's nothing the matter with business. It may be less than one per cent poorer than 1929, but it is 82.5 per cent better than 1928, the previous record year.

From the standpoint of the entire industry, business for the

AFTER HOURS

first two months is 20 per cent under 1929, but 55 per cent above 1928.

The statistics furnish proof that the truck industry is conducting its affairs with wisdom. Witness the fact that while foreign and domestic sales totaled 93,339, production was held to 89,259. Thus instead of a piling up of inventories we had a decrease of 4000 and some odd units.

While the opening months never could be considered indicators of the sort of business to be expected during the year, it is a hopeful circumstance that truck business domestically has stood up extremely well during the worst months of the depression. With signs of growing relief on the national horizon, it may be expected that April, May and June will record satisfactory business. The promises of intensified construction work which the Hoover huddles elicited from industrial leaders have just begun to materialize.

In the export market truck manufacturers will find it profitable to tread cautiously. With few exceptions, conditions abroad are nothing to write home about. Latin America and South America have felt a depression in prices of staple commodities; an extreme labor policy in Australia has proved disconcerting; India is experiencing industrial and political unrest; England is overburdened with taxes and unemployment; Germany has much unemployment, and there is uncertainty because of a reluctance to readjust wages in line with price changes. Japan and France stand out as bright spots in a dull picture. The latter, in fact, is relatively the most prosperous country in the world at the present time. It has virtually no unemployment.

Last year something like 40 per cent of American truck production found its way into foreign markets. This dependence on the export field was expected to show a growth this year. A recession appears more likely at

the moment. But because this dependence is certain to grow with the passing years, manufacturers should pursue a long-viewed policy and not do anything to gain a temporary advantage that might endanger their future position.

SERVICE

SO it can be seen that hard work still is a good piece of advice for any business man to follow. And among dealers whose truck sales are not up to their expectations, some of this hard work might profitably be applied to the service end of their business. If you have prospects who would normally have replaced some of their trucks, just remember that the trucks they failed to replace constitute the best sort of maintenance potential. Make sure that you get this business. And when you get it, get it at a profit to yourself, while keeping the close contact with the prospect that will enable you to land him when he's back on the buying wagon.

Maintenance, it is obvious, offers a good opportunity for bolstering a shaky balance sheet.

RED BOOK

LAST month we made some extended comments regarding the new Truck Red Book. We expected it to arouse the interest of readers, and we were not disappointed. But we were disappointed in the fact that with only several exceptions the numerous inquiries we received were from branch managers, dealers and sales managers. So far as the interest of truck salesmen is concerned, this showing may not prove a thing, and it would be useless to speculate. But it is particularly stimulating to know that the men in executive positions are on the alert to take advantage of everything helpful that comes along.—G.T.H.



ADAPTABLE for Any Type of Body... Any Kind of Work!

Regardless of what your hauling problem may be—or what type of body equipment your work requires—it's wise to choose a Chevrolet 6-cylinder truck.

For—as specifications plainly show—Chevrolet trucks do more than accommodate the standard types of panel, express, stake and screen bodies. They are suitable for a wide range of special equipment—from moving vans to slip-on boxes, from power dumps to power winches. And here are the reasons why.

A heavy 6-inch channel steel frame takes full advantage of the Chevrolet 131-inch wheelbase. Rigidly braced by five sturdy cross-members, and supported 35 inches behind the rear axle, this frame permits the mounting of over-size bodies without excessive over-hang. And the long semi-elliptic springs, combined with a low center of gravity, provide proper distribution of load-weight, and carry full-

capacity loads without dangerous sidesway.

Moreover, every feature and detail of the chassis is constructed with a wide margin of over-strength. The spiral bevel gear rear axle, with its 5.43 to 1 gear ratio, is bigger and sturdier than ever. The time-proved transmission is rugged and durable. The big, powerful 4-wheel brakes offer braking efficiency far in excess of the severest requirements. And of utmost importance to every modern truck operator, Chevrolet is a Six—with all the speed, power, flexibility and long life which nothing less than six cylinders can give!

It will pay you to see and inspect this versatile new truck. Arrange for a trial load demonstration. And bear this fact in mind when you do—the Chevrolet 6-cylinder truck is as economical as any truck you can buy. It costs no more for gas—for oil—for tires—for service. And it sells as low as \$520 f. o. b. factory. Investigate this great new truck today!

Light Delivery Chassis.... \$365

1½ Ton Chassis with Cab \$625

The Roadster Delivery..... \$440
(Pick-up box extra)

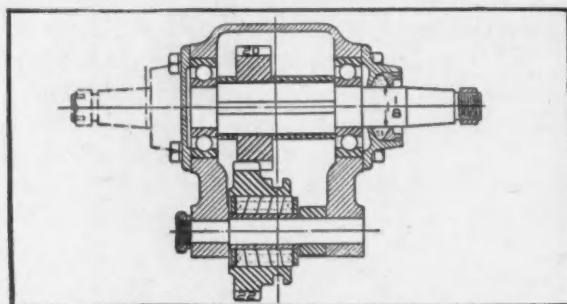
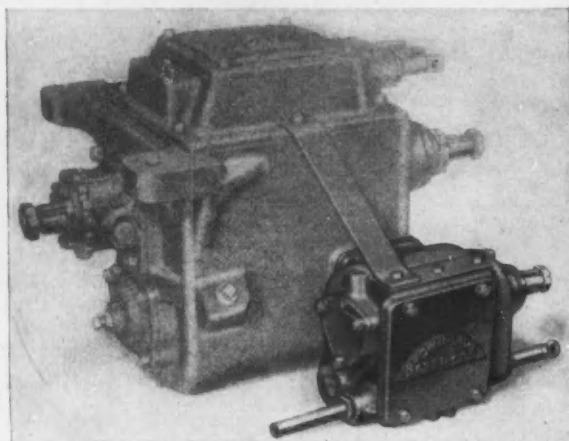
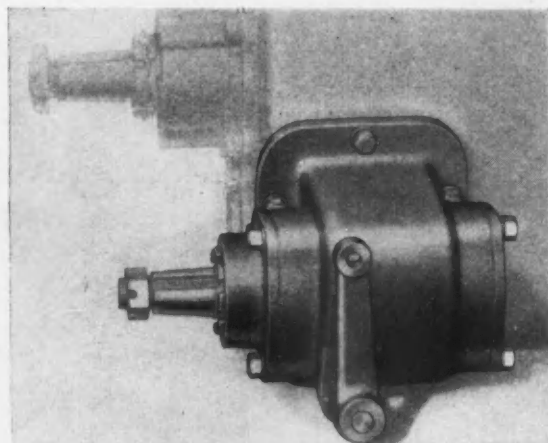
The Sedan Delivery..... \$595

1½ Ton Utility Chassis \$520
(Spare tire extra)

All prices f. o. b. factory
Flint, Michigan

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

POWER TAKE-OFFS



A ONE-SPEED POWER TAKE-OFF MOUNTED ON AN S.A.E. POWER TAKE-OFF OPENING ON THE SIDE OF A TRANSMISSION. THE POWER SHAFT CAN BE EXTENDED EITHER FORWARD OR BACKWARD FROM THIS POSITION

A TWO-SPEED AND ONE REVERSE TAKE-OFF ATTACHED TO THE SIDE OF AN AMIDSHIP TRANSMISSION

CROSS-SECTION VIEW OF THE INTERIOR OF A TYPICAL POWER TAKE-OFF ATTACHMENT. THE LOWER GEAR IS SHIFTED FOR ENGAGEMENT, WHEN POWER IS REQUIRED

Transmission Attachments and Propeller Shaft Units Deliver Engine Power to Truck Equipment

ALTHOUGH power take-offs are available for operating all of the various types of power-driven equipment intended for mounting on trucks, all take-offs are not suitable for all services. On the contrary, take-offs of many types have been designed to meet requirements ranging all the way from driving a capstan a few minutes per day to transmitting full engine power, hour after hour.

Take-offs are of two general types, those attached to unit-mounted or amidships transmission and self-contained units which are placed between the transmission and rear axle and connected to the propeller shaft.

The simplest form of transmission attachment provides one speed forward and no reverse. The attachment comprises a case which is bolted to an opening provided in the side of the transmission case, a power-shaft to which a sprocket, pulley, or universal joint flange is attached, and two gears, one of which is shifted by a fork and rod. To engage take-off, the truck clutch is thrown out and take-off lever thrown into engagement, and the device driven by the take-off is then controlled by engaging and disengaging the truck clutch.

Two speeds forward and one speed reverse are provided by other take-off attachments. Because the number of gears required, the cases of these attachments are much larger than the one-speed take-offs and when they are applied to the same size opening they may be braced by a strap extending to the top of the main transmission.

A take-off opening for transmissions, adopted as standard of the S.A.E., is shown in one of the accompanying illustrations. Many transmissions now in production incorporate this opening for the attachment of take-offs. Some transmissions have two such take-off openings to provide means of driving two different devices. Although the S.A.E. take-off opening gives uniformity of dimensions, there is a variation in the depth which the take-off gear must extend into the case to mesh with the transmission gear from which power is taken. The depth incorporated in design of take-off attachments may be varied by inserting gaskets under the attachment, or by placing a filler block between transmission opening and attachment. Filler blocks are available in thickness from approximately $\frac{1}{4}$ in. to 3 in. Adapter plates have also been made so that take-off attachments conforming to S.A.E. standard dimensions may be placed on transmissions with openings of different sizes.

A propeller shaft type power take-off located in the rear of the truck transmission permits use of all the

VARY WITH NEEDS

Manufacturers:

Bay City Foundry & Machine Co., Bay City, Mich.
Brown-Lipe Gear Co., 1117 W. Fayette St., Syracuse, N. Y.
Heil Co., Milwaukee, Wis.
Hydraulic Hoist Mfg. Co., 292 Walnut St., St. Paul, Minn.
Jaeger Portable Power Corp., 1326 E. Woodbridge St., Detroit.
Lincoln Mfg. Co., Connersville, Ind.
Utility Supply Co., Clintonville, Wis.
Wood Hydraulic Hoist & Mfg. Co., 1401 Montana Ave., Detroit.

Prospects:

Power take-offs seldom are sold without power-driven equipment. Vocations using such equipment are listed under headings in the articles concerning special bodies, tanks, pumps, concrete bodies, dump bodies, pulling and lifting devices, hoists and highway equipment in this issue.

truck transmission speeds for operating a power-driven device on the truck. It is, of course, designed to transmit the full torque available on the propeller shaft. Power to drive the truck is transmitted through the take-off and engine power may be delivered to the rear wheels or to the power-driven device, or to both at the same time.

More than one forward speed is not required in a propeller shaft power take-off, but it may be provided with a reverse independent of the truck transmission reverse speed. This construction is useful when operating a winch, as the reverse speed of the take-off is made slightly faster than pulling speed, and this speed is much faster than could be obtained by using reverse speed of the truck transmission.

Propeller shaft take-offs may be provided with an extra shaft and drive gear so that two devices may be driven.

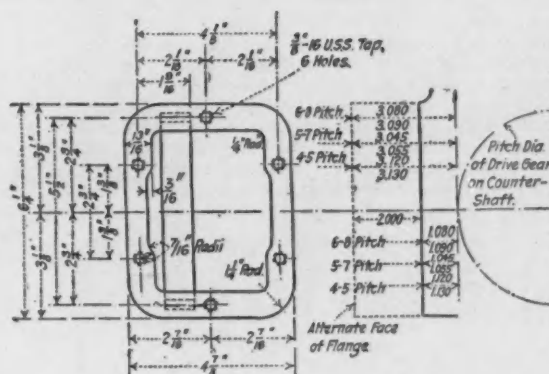
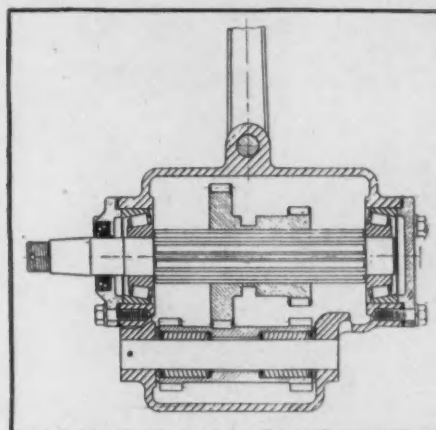
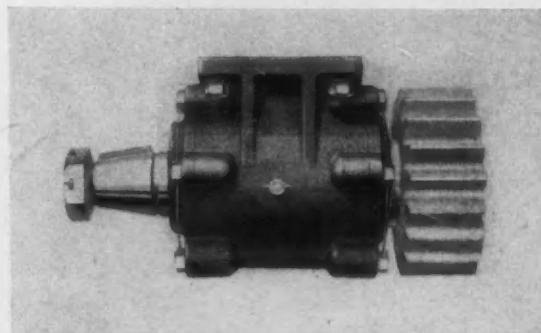
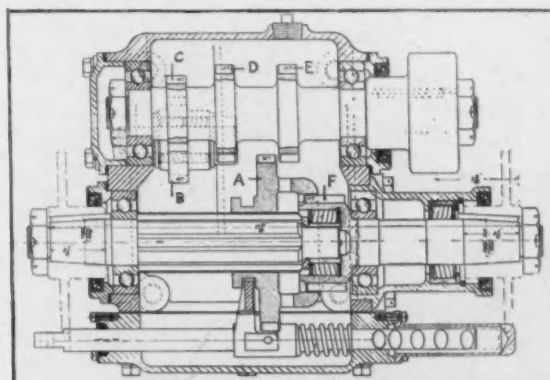
Unless the winch, or power-driven equipment, is mounted directly over the power take-off, it is necessary to install a universal-jointed power shaft to transmit power from the take-off. A support is needed for the end of the shaft on which the sprocket driving the winch is placed and hangers are made for this purpose. They incorporate a shaft mounted on anti-friction bearings, in most cases, and the sprocket or gear can be mounted either on the same side as the flange of the universal joint or on the opposite side.

CROSS-SECTION OF A PROPELLER SHAFT POWER TAKE-OFF WHICH PROVIDES DRIVE TO REAR WHEELS, OR TO WINCH OR BOTH. A REVERSE SPEED IS PROVIDED IN THIS TAKE-OFF WHICH IS FASTER THAN THE FORWARD SPEED. THIS FAST REVERSE IS USEFUL IN WINCH SERVICE

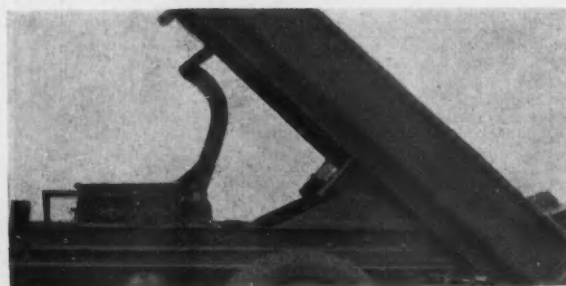
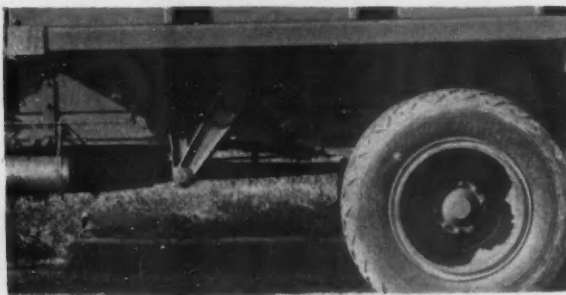
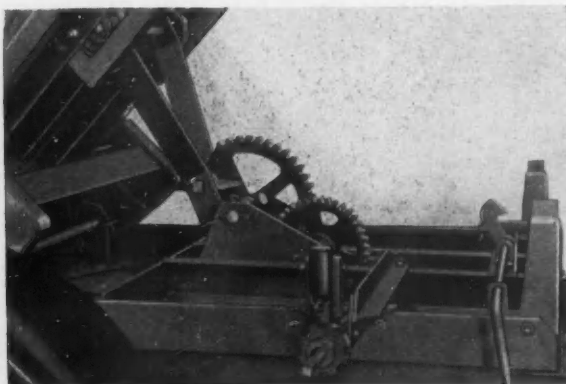
A POWER DRIVE HANGER WHICH IS ATTACHED TO CHASSIS FRAME OR TRUCK MEMBER FOR SUPPORTING ONE END OF A POWER SHAFT. UNIVERSAL JOINT IS ATTACHED TO THE TAPER SHAFT AND POWER IS DELIVERED THROUGH THE SPROCKET

A TWO-SPEED FORWARD AND REVERSE POWER TAKE-OFF WHICH IS DESIGNED FOR ATTACHMENT TO A UNIT MOUNTED MAIN TRANSMISSION. THE SHIFT LEVER EXTENDS TO THE CAR FLOOR. IF ATTACHED TO AN AMIDSHIP TRANSMISSION A SHORT LEVER AND CONTROL ROD ARE EMPLOYED FOR THIS PURPOSE

DIMENSIONS OF A STANDARD S.A.E. POWER TAKE-OFF OPENING FOR TRANSMISSION



HOISTS APPLY POWER



MECHANICAL TYPE HOISTS ARE OPERATED BY HAND OR POWER AND LIFTING IS ACCOMPLISHED BY GEARING OR CRANKS, OR BOTH. PART OF THE BODY ON A HAND HOIST MAY BE OFFSET BEYOND THE HINGE POINT TO REDUCE LIFTING EFFORT REQUIRED, AS IN FIG. 1. A CRANK DRIVEN BY GEARS FROM A POWER TAKE-OFF PROVIDES POSITIVE CONTROL WHILE LIFTING AND LOWERING OF BODY SHOWN IN FIG. 2. A POWER-DRIVEN MECHANICAL HOIST IS ILLUSTRATED IN FIG. 3. THIS BODY ALSO IS HINGED WELL FORWARD OF THE TAILGATE

Manufacturers

Anthony Co., Streator, Ill.
Columbian Steel Tank Co., 1519 W. 12th St., Kansas City, Mo.
Commercial Shearing & Stamping Co., Youngstown, Ohio.
Detroit Trailer & Machine Co., 453 Beaufait Ave., Detroit, Mich.
Differential Steel Car Co., Findlay, Ohio.
Eagle Wagon Co., 45 Columbus St., Auburn, N. Y.
Fitz Gibbon & Crisp, 467 Calhoun St., Trenton, N. J.
Galion All-Steel Body Co., Box 25, Galion, Ohio.
Heil Co., 1142 Montana Ave., Milwaukee, Wis.
Hughes-Keenan Co., Wayne & Newman Sts., Mansfield, Ohio.
Jungerson Dump Body Co., 47th Ave. and Rogers St., Milwaukee, Wis.
Marion Steel Body Co., Marion, Ohio.
Marquette Mfg. Co., 218 S. Wabash St., St. Paul, Minn.
Moore Body Co., Reading, Pa.
National Steel Products Co., 1611 Crystal Ave., Kansas City, Mo.
O'Connor Machine Co., Horton Ave., Sheffield, Pa.
Perfection Steel Body Co., Perfection Bldg., Galion, Ohio.
Rock Mfg. Co., 21 E. Elizabeth St., Waterloo, N. Y.
Simplex Body & Mfg. Co., Conneautville, Pa.
St. Paul Hydraulic Hoist Mfg. Co., 292 Walnut St., St. Paul, Minn.
Steinke Bros. Mfg. Co., 1530 N. Adams St., Peoria, Ill.
Universal Hoist & Body Co., Paris St., Everett, Mass.
Utility Trailer Mfg. Co., P. O. Box 206, Arcade Sta., Los Angeles, Cal.
Van Dorn Iron Works Co., 2685 79th St., Cleveland, Ohio.
Warner Elevator Mfg. Co., 2613 Spring Grove Ave., Cincinnati, Ohio.
Wood Hydraulic Hoist & Body Co., 7958 Riopelle St., Detroit, Mich.

Prospects

Vocations interested in hoists are listed under heading of prospects in the article on dump bodies commencing on page 38 of this issue. Tower hoists which are not included therein may be sold to: Electric light and power companies, municipalities, street railways.

Manufacturers of tower hoists:
Wood Hydraulic Hoist & Body Co., 7958 Riopelle St., Detroit, Mich.
Seagrave Co., Columbus, Ohio

DUMP bodies and hoists are sold together almost invariably and although much study is given to body details the hoist is apt to be rather taken for granted. Inasmuch as the useful value of a dump body depends to a large degree upon its lifting mechanism it is obvious that the hoist deserves better consideration.

Dealers and salesmen who set out to learn about hoists soon find out that there is a wide diversity of construction. Pumps, gears, levers, rods and bearings are assembled in many combinations and dealers may wonder why so many different types are made or what underlying principle, if any, is common to all.

Leverage is incorporated in all hoists in one form or another. The weight to be lifted to dump a body is large and speed of lift is comparatively slow, therefore hoists provide a speed reduction ratio between the power take-off shaft and the lifting rods or arms of the hoist. As hoists perform somewhat the same tasks as jacks it is not surprising

TO TRUCK UNLOADING



Mechanical and Hydraulic Types, Operated by Hand or Engine Power, May Be Had for Small or Large Loads



4



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HIGH LIFT HOISTS ELEVATE BODIES ON DOUBLE ARMS WHICH CARRY THE BODY UP AND THEN TIP IT FOR DUMPING. MOST HOISTS OF THIS TYPE AS IN FIG. 4, WILL ALSO DUMP THE BODY AT ORDINARY HEIGHT, IF DESIRED. TOWER HOISTS, WHICH ARE NOT USED WITH DUMP BODIES, CARRY A SWINGING PLATFORM TO SUPPORT WORKMEN ENGAGED IN INSTALLATION OR REPAIR OF OVERHEAD LINES OR ELECTRIC LAMPS. FIG. 5.

FOUR DIFFERENT APPLICATIONS OF HYDRAULIC CYLINDERS TO DUMP BODIES ARE SHOWN BELOW. FIG. 6 ILLUSTRATES A SINGLE CYLINDER VERTICAL HOIST WHICH IS MOUNTED IN A TRUNNION. THE HORIZONTAL CYLINDER, FIG. 7, EXERTS PRESSURE AGAINST TWO CAMS UNDER THE BODY THROUGH TWO ROLLERS. A COMBINATION OF HYDRAULIC CYLINDER AND LEVERS ELEVATES THE BODY SHOWN IN FIG. 8. DOUBLE HYDRAULIC CYLINDERS WITH PUMP ON THE FRONT DRIVEN DIRECTLY BY POWER SHAFT ARE SHOWN IN FIG. 9.

that leverage is worked out by similar means in both. Gear reduction, cranks, screw and nut and hydraulic cylinders are employed for this purpose, and each of these is actuated by hand or by engine power. In addition to lifting and lowering a body the hoist mechanism, or its control, must provide means for holding a dump body in any desired position between are of small capacity, approximately 1 cu. yd.

The simplest form of dumping mechanism employs the ever-reliable force of gravity. The body is pivoted off center and held in place by a latch. When the load is to be dumped the latch is released and the body tips backward. Gravity dump bodies usually are of small capacity, approximately 1 cu. yd.

Hand-operated hoists, which may be mechanical or hydraulic, are used for dumping small loads, of the order of 1 to 2 cu. yd. of dirt and perhaps up to 3 tons of coal. To reduce the amount of effort required to dump the load by hand a modification of the gravity idea is employed in many designs. The body, instead of being hinged at the rear end, is pivoted some distance forward of this point. The hoist therefore actually lifts only the difference in weight forward and to rear of this point.

Power hoists are available for all capacities from 1 or 1½ cu. yd. bodies up to the largest which state laws permit. The fact that power take-offs are now available on light trucks as well as heavy-duty models has greatly increased interest in power hoists of smaller sizes.

Mechanical hoists embody gearing to reduce speed and increase lifting power and some means of changing rotary motion to reciprocating motion. Separate cranks and stub shafts on gears are used for this purpose and one design uses a screw and nut. Automatic stops usually are provided to halt the hoist at top and bottom positions.

Hydraulic hoists comprise a pump, usually of gear type, and a single or double cylinder. This construction provides reduction in speed and change of motion in the same mechanism. Hoist cylinders are placed in either horizontal or vertical positions. If placed horizontally a cam or crank action is used to transmit

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HOISTS APPLY POWER TO TRUCK UNLOADING

April, 1930

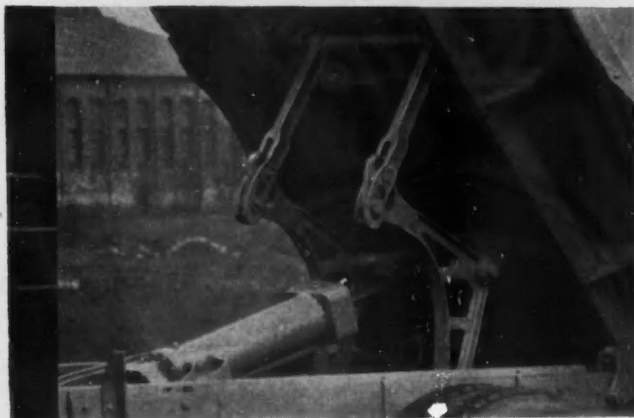
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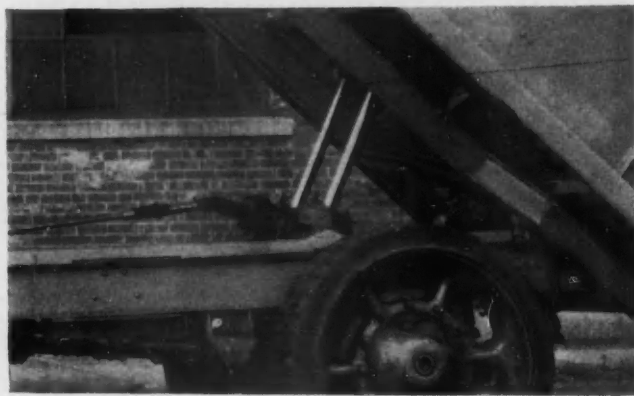
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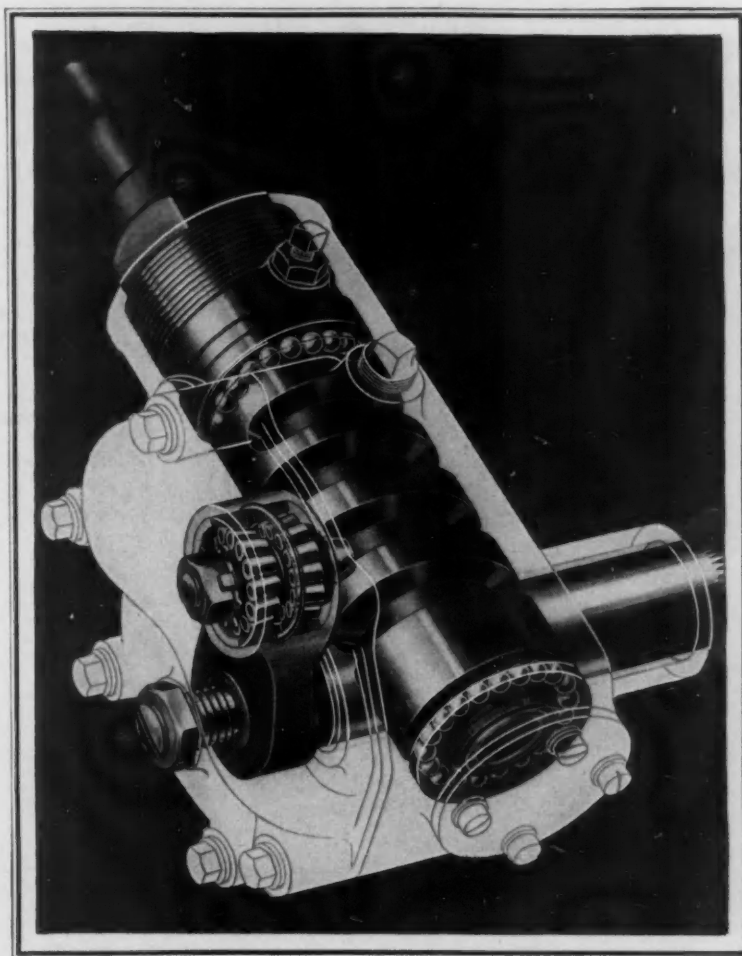


9



The Same Sense of Security

*.. plus
50% easier
wheel-turn*



The cam-and-lever principle on which the Ross "Roller-Mounted" Gear is constructed is shown above. Note the unusual length of the internal lever arm, and the fact that the only contact between the lever-stud and the cam thread is a rolling line-contact.

THE firm feel of the wheel—the definite and instant response afforded by the Ross Cam and Lever Steering Gear have always given the drivers of Ross-equipped cars a restful sense of security.

The same sense of security is communicated to drivers by the new "Roller-Mounted" type of Ross Cam and Lever Steering Gear, *plus* 50% easier wheel-turn. The cam-and-lever principle of construction, exclusive to Ross, is responsible for the unusual balance, and exceptional all-'round performance of the "Roller-Mounted" Gear. Complete information on this new steering gear by Ross will be sent on request.

ROSS GEAR and TOOL CO.
Lafayette, Indiana

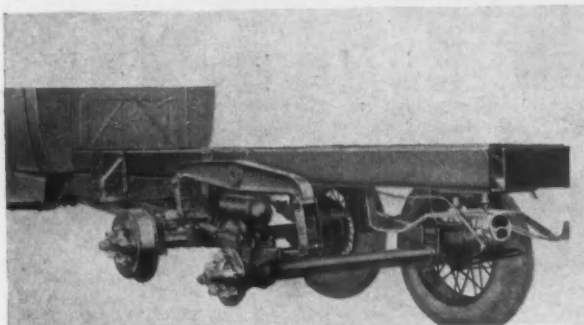
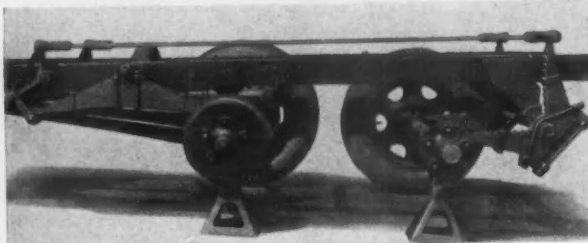
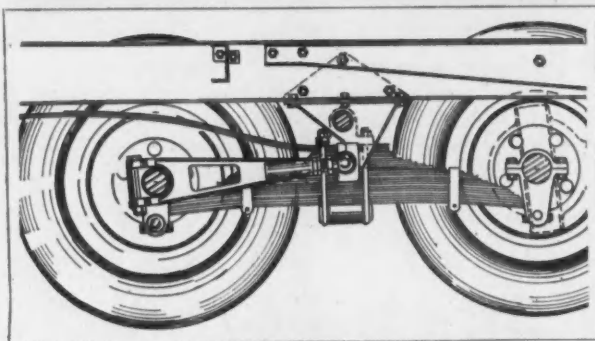
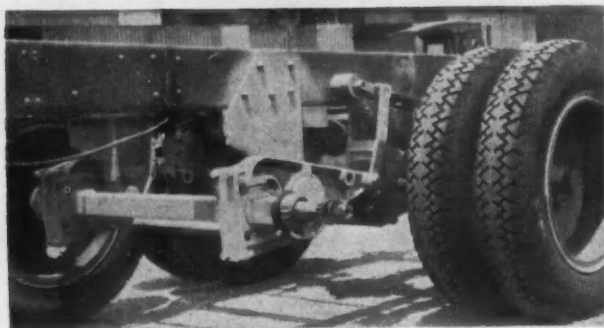
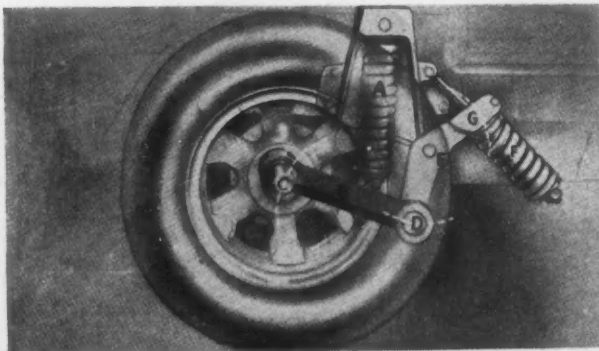
ROSS

**Cam
AND
Lever**

STEERING

"Roller-Mounted"

SIX-WHEEL DEVICES



Manufacturers

Continuous Torque Transmission Co., 3599 E. 82nd St., Cleveland, Ohio
 Dual Duty Co., Alma, Mich.
 F & F Six Wheel Co., 220 Market St., Los Angeles, Cal.
 Herman Body Co., 44200 Clayton Ave., St. Louis, Mo.
 P-H Multi-Wheeler Co., 1907 Kishwaukee St., Rockford, Ill.
 Rowe Mfg. Co., 18th and Hamshire Sts., San Francisco, Cal.
 Six Wheels, Inc., 2115 E. 16th St., Los Angeles, Cal.
 United Wheel & Rim Co., Niles Ave., Warren, Ohio
 Twin-Flex Corp., 4461 W. Jefferson Ave., Detroit, Mich.
 Utility Trailer Mfg. Co., P. O. Box 206, Arcade Sta., Los Angeles, Cal.

Prospects

1 All operators who have loads of two tons or more to transport are potential users.

2 SIX-WHEEL attachments, conceived as a means for overcoming weight restrictions on four-wheel vehicles and taking advantage of higher limits permitted on six-wheelers, have their big utility today in increased pay-load. Growing recognition of this advantage is reflected by thousands of such attachments serving all kinds of businesses to be seen on the highways today. Manufacturers, to meet the increasing demand, are furnishing dead axle attachments for two-wheel drive trucks for all types and sizes of heavy trucks down to the light capacities including Ford and Chevrolet.

By far the majority of units on the market today are designed for light trucks, although the heavy-duty types also are well represented. The following review divides ten different types into two groups, those designed for practically all makes of trucks and those for Fords and Chevrolets. The review also reveals decided individuality in design between types.

3

FIG. 1—THE TRUCKTOR IS DESIGNED TO CONVERT STANDARD TRUCKS INTO SIX-WHEEL CRAWLERS WITH DETACHABLE TRACKS OPERATING AROUND PNEUMATIC TIRES. THE EXTRA WHEELS ARE MOUNTED INDEPENDENT OF EACH OTHER AS WELL AS OF THE DRIVEN WHEELS. THE TRUCKTOR WHEEL IS CARRIED ON STUB SHAFT C, OF WHICH ROCKER ARM B IS A PART. THE LOAD IS CARRIED BY VERTICAL SPRING A. ROCKER-ARM B PIVOTS AT D AND D IS PART OF ROCKER ARM DEG. THE TRACK TENSION SPRING F BEARING AGAINST G DRAWS C AND D FORWARD, AUTOMATICALLY TIGHTENING THE TRACK

4

FIG. 2—UTILITY 6-WHEEL UNITS ARE OFFERED IN FOUR MODELS FOR INSTALLATION ON ALL MAKES EXCEPT FORD AND CHEVROLET. THE UNIT CONSISTS OF AN AXLE, CONNECTING LEVERS AND SUPPORTING BRACKETS. THE FRONT ENDS OF THE LEVERS, WHICH ARE PIVOT MOUNTED IN THE BRACKETS, ARE SHACKLED TO THE REGULAR TRUCK SPRINGS AND THE REAR ENDS ARE CONNECTED TO THE DEAD AXLE THROUGH SPHERICAL BEARINGS WHICH PERMIT FREE MOVEMENT OF THE AXLE VERTICALLY

5

FIG. 3—THE DUAL DUTY UNIT FOR FORD AA TRUCKS EMBODIES STANDARD FORD SPRINGS WITH ADDED LEAVES, WHICH DIVIDE THE LOAD, AUXILIARY SPRINGS FOR LIGHT RUNNING AND RADIUS RODS TO KEEP THE WHEELS EQUAL DISTANCE APART. ONE END OF THE RADIUS ROD IS SWIVELED TO THE DEAD AXLE AND THE OTHER END IS BALL-JOINTED TO THE SPRING BRACKET TO ALLOW UNIVERSAL ACTION

BOOST PAY LOADS

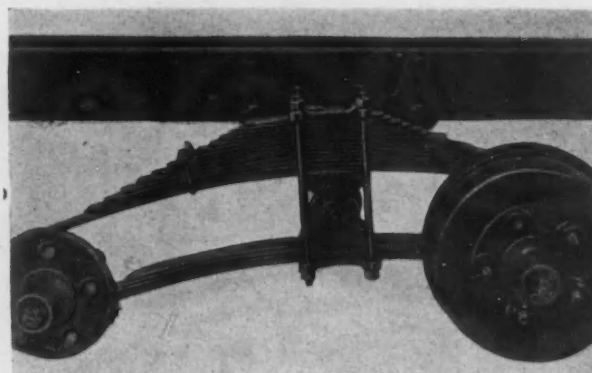
FIG. 4—THE TWIN-FLEX ATTACHMENT DESIGNED FOR FORD AA TRUCKS COMPRISES A FRAME EXTENSION, AN AXLE, SPRING, TIE-RODS AND BELL-CRANKS. THE IMPORTANT FEATURE OF THIS UNIT IS ITS SPRING SUSPENSION. THE CONNECTION OF THE TWIN-FLEX SPRINGS WITH THE FORD REAR SPRINGS THROUGH TIE-RODS AND BELL-CRANKS THROWS HALF THE REAR WHEEL LOAD ON THE TWO DRIVING WHEELS AT ALL TIMES

FIGS. 5 AND 6—JUMBO MULTI-WHEELERS, A PRICE-HOLLISTER PRODUCT FOR FORDS AND CHEVROLETS, COME IN FIVE MODELS EMBODYING TWO TYPES OF DESIGN. THE FIRST DESIGN EMPLOYS FOUR SEMI-ELLIPTIC SPRINGS AND TWO EQUALIZING BEAMS WHICH ARE TRUNNION-MOUNTED ON EACH SIDE OF THE FRAME. THE FRONT ENDS OF THE BEAMS ARE SHACKLED TO THE REAR ENDS OF THE FRONT SPRINGS AND THE REAR ENDS OF THE BEAMS TO THE REAR ENDS OF THE REAR SPRINGS. THE FRONT ENDS OF THE SPRINGS ARE SHACKLED TO FRAME BRACKETS. IN THE SECOND DESIGN THE REGULAR FORD SPRINGS ARE MOVED BACK ABOUT 30 IN. AND CONNECTED TO BOTH REAR AXLES BY UNIVERSAL BALL SPRING HANGERS. SO THAT THE GREATER LOAD WILL BE CARRIED BY THE DRIVING AXLE, THE DEAD AXLE IS PLACED ABOUT 5 IN. TO THE REAR OF THE SPRING ENDS BY CASTINGS ATTACHED TO THE REAR ENDS OF THE SPRINGS

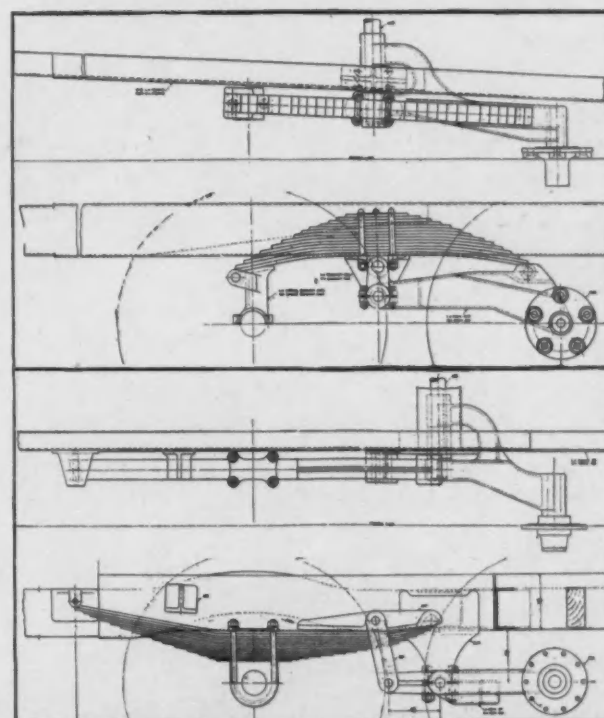
FIG. 7—THE F & F SIX-WHEEL ATTACHMENT AND FRAME EXTENSION FOR FORD AA TRUCKS EMBODIES TWO-STAGE SPRING SUSPENSION, A LOWER SPRING ATTACHING TO BOTH AXLES TO TAKE LIGHT LOADS AND AN UPPER HEAVY AUXILIARY SPRING WHICH COMES INTO PLAY AS THE LOAD INCREASES. THE DRIVE AXLE CARRIES 60 PER CENT OF THE WEIGHT. THE SPRINGS ARE U-BOLTED TOGETHER AND TRUNNION-MOUNTED ON A CROSS-BAR, WHICH IS CARRIED IN A BRACKET EXTENDING DOWN FROM THE CHASSIS FRAME. THE BRACKET WHICH ATTACHES THE DEAD AXLE TO THE LOWER SPRING PROVIDES SLIGHT SIDEWISE MOVEMENT FOR TRACKING AND UNIVERSAL ACTION TO ACCOMMODATE TWIST

FIGS. 8 AND 9—UNITED TANDEM WHEELS FOR FORDS AND CHEVROLETS EMPLOYS THE STANDARD FORD AND CHEVROLET SPRINGS IN ITS SIX-WHEEL EXTENSION UNITS. THE EXTRA WHEELS OF THE FORD UNIT ARE CARRIED ON STUB SHAFTS EXTENDING FROM ROCKER ARMS PIVOTED AT THE FRONT END ON A ROCKER SHAFT, WHICH IS SUPPORTED BY THE SAME BRACKET SECURING THE SPRINGS. THE REAR END OF THE SPRING IS ATTACHED BY ITS EYE TO THE ROCKER ARM AND THE FRONT END TO THE LIVE AXLE. WHILE THE EXTRA WHEELS OF THE CHEVROLET UNIT (FIG. 9) ARE ALSO CARRIED ON ROCKER-ARM STUB SHAFTS, THE ROCKER ARM IS MOUNTED DIFFERENTLY. PIVOTED ON A ROCKER SHAFT, LOCATED TO THE REAR OF THE SPRING, THE ROCKER-ARM CONNECTS TO THE REAR END OF THE SPRING THROUGH A LEVER AND A SPECIAL PLATE PLACED ON TOP OF THE SPRING AND SECURED BY THE SPRING ATTACHED TO THE REAR END OF THE SPRING

FIG. 10—HI-LO UNITS FOR FORD AND CHEVROLET, MADE BY THE CONTINUOUS TORQUE TRANSMISSION CO., EMPLOY THE STANDARD TRUCK SPRINGS CARRIED ON A CROSS-BAR AND ARE PROPORTIONED TO GIVE 60-40 WEIGHT DISTRIBUTION. A FEATURE OF THE SUSPENSION ARE THE SPRING ENDS WHICH SLIDE IN PERCHES AND A WISH-BONE TYPE OF TORQUE AND RADIUS ROD, WHICH IS BALL-JOINTED TO THE SPRING CROSS-BAR. THE SPRING PERCHES ALSO ALLOW SLIGHT SIDE MOVEMENT. EXTERNAL BRAKES ARE FURNISHED IF DESIRED. BRAKE RODS ARE INSTALLED SO AS TO PERMIT EXTREME UP AND DOWN MOVEMENT OF THE AXLE WITHOUT CAUSING DRAGGING

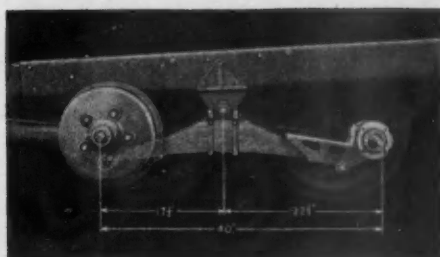


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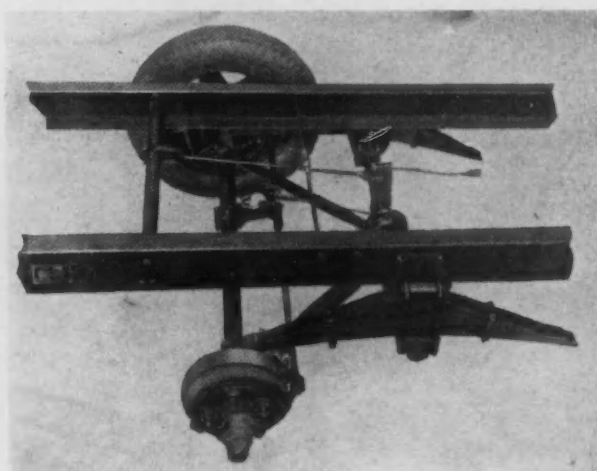


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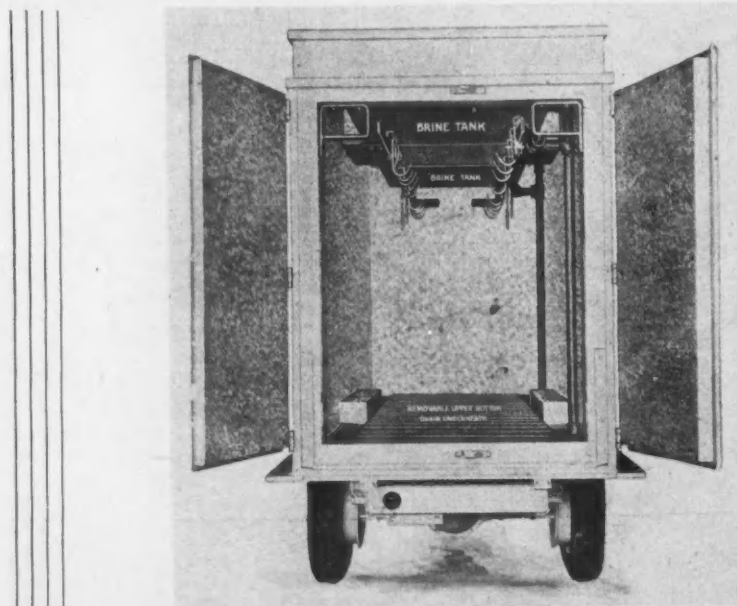
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10



April, 1930

REFRIGERATOR

Dry-Ice *

Dry-Ice, solid carbon dioxide, is the name of a new commercial refrigerant, and Dry-Ice bodies are those which use this refrigerant. Bodies so equipped are available for any service involving the transportation of perishables. The advantage of Dry-Ice is that it takes up less space, saves weight, provides even temperatures, eliminates brine corrosion, and is more sanitary. While the layout of a body may vary according to individual needs, the principle of construction is the same for all. A container is provided for the Dry-Ice, sides and walls are insulated, and duct space is provided between the walls to permit circulation of carbon dioxide gas.

MANUFACTURERS: AUTHORIZED BUILDERS OF DRY-ICE BODIES ARE LOCATED IN MOST OF THE LARGE CITIES OF THE COUNTRY. THE LIST MAY BE OBTAINED FROM THE DRY-ICE EQUIPMENT CORP., 52 VANDERBILT ST., NEW YORK CITY.

Mechanical *

Mechanically refrigerated bodies save weight by the elimination of salt and ice, increase load-carrying capacity, provide temperature control and permit long runs. Power for operating the refrigerating units may be obtained from an independent power unit or from a generator driven from a power take-off. Units equipped with an auxiliary motor may be operating during the night by plugging into a convenient light socket in the garage. The bodies themselves are insulated for low conductivity and low moisture absorption. They are available in various sizes to meet individual requirements.

MANUFACTURER: SEE REFERENCE NUMBER 57 on page 22.

Water Ice *

Bodies using water ice as a refrigerant are built in many different designs to suit different vocational requirements. The majority are offered in sizes for mounting on 2½ to 5-ton chassis. Tanks or brine compartments are generally built in the roof, although some have them on the side. Among the outstanding characteristics to be considered in these bodies are method of insulation, construction and location of brine tanks, brine circulation and discharge and layout of loading compartment.

***PROSPECTS:** Beverage venders, butter and egg dealers, confectioners, dairies, florists, fruit and produce dealers, ice cream makers, meat packers, motor freight companies, poultry and sea food dealers.

MANUFACTURERS: LOCATED IN PRACTICALLY EVERY LARGE CITY. SEE REFERENCE NUMBERS 5, 9, 13, 21, 25, 30, 32, 34, 38, 41, 42, 47, 54, 61, 75, 80 on page 22.

BRICK

This equipment, designed to save handling time and protect face-brick from damage, consists of two or three detachable bodies and a loading and unloading mechanism operated from a power take-off. By means of this system one body can be loaded at the brickyard while the other is in transit. The unloading mechanism discharges the bricks in neat piles. Available in various sizes.

MANUFACTURER: SEE REFERENCE NUMBER 4 on page 22.

BAKERY

Retail

While external appearance places the bakery body in the panel body class, considerable variation is to be noted in interior arrangements to suit different product and delivery requirements. Bodies in this service may have one, two or three compartments, various shelf layouts, shelves may be fixed or of the sliding type, special racks may be provided for pies, and doors may be on the side, at the rear or at both places.

Wholesale

Bodies used in the wholesale delivery of bakery products, fresh or baked, are generally of the van type. Capacity and size, of course, varies according to requirements, but they are available in sizes capable of accommodating as many as 8500 loaves of bread or 700 cans of biscuits or fancy cakes. The body illustrated is 16 ft. long, 7 ft. 4 in. wide and 7 ft. high, inside dimensions.

MANUFACTURERS: SEE REFERENCE NUMBERS 5, 10, 12, 14, 18, 20, 23, 29, 30, 32, 35, 36, 37a, 41, 43, 45, 48, 50, 53, 54, 56, 57, 60, 61, 62, 75, 80 on page 22.

LIVESTOCK

Most livestock bodies are of the single-deck type, although double-deckers with collapsible outside ramps are available. The latter, while designed for small stock, are generally convertible for handling large stock as well. Body sides are slatted for ventilation, and in some instances floors are cleated to provide firm footing and set at slight angle for drainage. These bodies are available for mounting on various-sized trucks.

MANUFACTURERS: SEE REFERENCE NUMBERS 3, 5, 9, 20, 22, 25, 37a, 41, 46, 50, 61, 72, 76, 80 on page 22.

HOUSE-TO-HOUSE

Bodies used in this service must provide easy entrance and exit. Two doors, one on each side, and generally located in back of the front wheels, are provided for quick access to the driving controls and the body interior. Loading shelves are arranged according to individual requirements. Low floor height is desirable to afford greater driver ease in getting in and out the body. Panels or windows are optional.

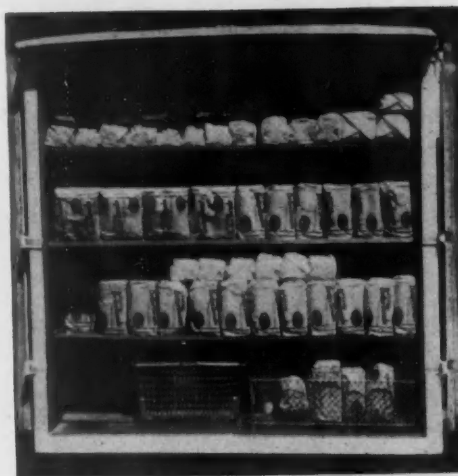
PROSPECTS: Bakeries, dairies, laundries, or any service where routes are concentrated and stops frequent.

MANUFACTURERS: SEE REFERENCE NUMBERS 24, 55, 66, 69, 71 on page 22.

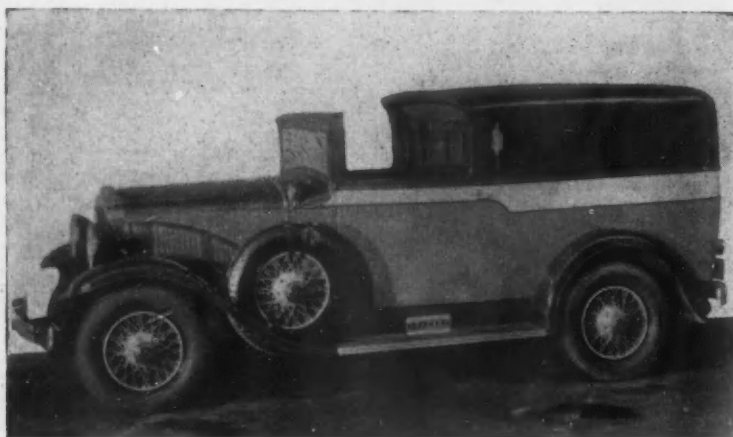
SPECIAL BODIES FOR 42 VOCATIONS

CONTINUED FROM PAGE 25. TURN TO
PAGE 58 FOR ADDITIONAL DESCRIPTIONS

*The Commercial Car Journal
and Operation & Maintenance*



April, 1930



SPECIAL BODIES FOR 42 VOCATIONS

CONTINUED FROM PAGE 57

April, 1930

PORTABLE STORE

Rolling stores are large panel jobs equipped with shelves, counters, cases, refrigerators, etc., much like the corner grocery store. Layout, of course, depends upon the nature of the business, but the use of a central aisle is common practice. While some bodies are furnished with two doors, the use of front-end doors similar to those used in buses is more conventional. These bodies are available in various sizes for mounting on different capacity chassis.

MANUFACTURERS: SEE REFERENCE NUMBERS 9, 30, 32, 38, 43, 61, 76 on page 22.

GRAIN

Grain bodies used in this country are frequently of the grain and stock combination type. Sides are so designed that the spacings necessary for ventilation when transporting stock may be closed for handling loose or sacked grain. Conversion is accomplished either by using full sides that may be extended to form slots or by dropping canvas down the inside of rack sides. The size of such body depends on the farmer's needs and is available for mounting on chassis ranging from 1 to 5 tons.

MANUFACTURERS: SEE REFERENCE NUMBERS 1, 9, 17, 19, 20, 21, 39, 46, 58, 61, 72, 79, 80 on page 22.

ICE DELIVERY

Bodies used in retail delivery bear but little resemblance to the type in use a few years ago. In the new types, the body is lighter and can be used for other purposes during off-peak periods. The modern ice truck has straight sides, 3 to 4 ft. high, open top with canvas covering carried on side rails, open rear with canvas flaps and single or two-part tail-gates from 8 to 15 in. high.

MANUFACTURERS: SEE REFERENCE NUMBERS 1, 6, 9, 15, 22, 26, 32, 37, 37a, 38, 49, 60, 75, 78, 80 on page 22.

DE LUXE DELIVERY

A number of retail establishments, to reflect the character of their business, convey an impression of quality and maintain prestige, are using luxurious delivery equipment. These bodies are designed with graceful and sweeping lines, embellished with attractive hardware and glassware, and finished in harmonious color combinations. The illustration shows a type of town car delivery, finished in orchid and trimmed in yellow.

PROSPECTS: Caterers, cleaners, confectioners, department stores, dress shops, florists, furriers, jewelers, hat shops.

MANUFACTURERS: SEE REFERENCE NUMBERS 12, 14, 15, 32, 40, 41, 43, 48, 53, 72, 76 on page 22.

Safety— it is up to You

EVERY seventeen minutes a life is lost thru traffic accidents—not to mention lesser injuries or property damage that result from the same cause. Unfortunately, much of this tragic loss is caused by commercial vehicles—a major problem which every man in the transportation industry may well take a part in solving.

Traffic safety is largely a matter of braking. And the efficiency of braking depends directly on the brake lining that is used. Imagine the difference if *every* vehicle were equipped with the *best* brake lining.

Why not use a brake lining that gives you this safety? Ferodo Brake Linings are being used with complete satisfaction by the largest fleet operating companies in the country. You also can depend on Ferodo Linings to give you the best service, safety and economical maintenance.

FERODO AND ASBESTOS INCORPORATED

Manufacturers of Ferodo Bonded
Asbestos Brake Lining in rolls,
Ferodo Pat. Die-Pressed Brake
Segments, and Ferodo M-R Lining.

Factory and General Offices: New Brunswick, New Jersey



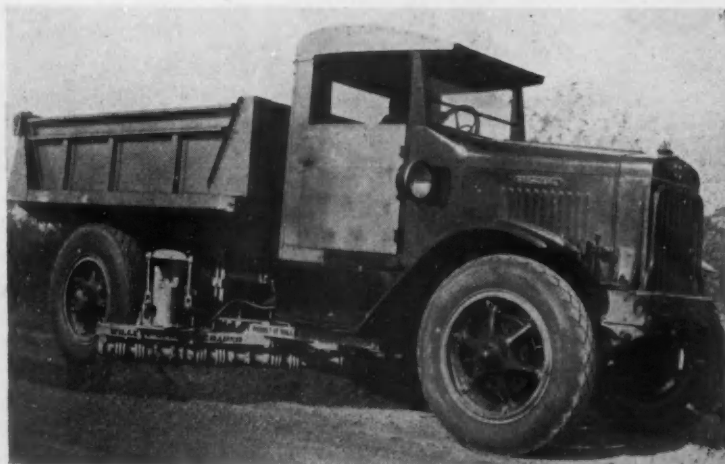
E-4-30

EQUIPMENT FOR CLEANING AND MAINTAINING HIGHWAYS

Scrapers

The scraper is a necessary item of equipment in highway patrol work. They are generally attached to dump trucks as an auxiliary for service when needed. Consisting of a blade hung from the chassis frame at an angle between the front and rear wheels, they vary mostly in method of control, being manually, mechanically, pneumatically or hydraulically operated.

MANUFACTURERS: PNEU HYDRO ROAD MACHINERY CO., CADILLAC, MICH.; WILLETT STEEL SCRAPER CO., GRAND RAPIDS, MICH.; UTILITY SUPPLY CO., CLINTONVILLE, WIS.; LA PLANT-CHOATE MFG. CO., CEDAR RAPIDS, IOWA



Flushers

Flushers, both gravity and pressure, are produced in capacities ranging from 300 to 1800 gal. for cleaning, dust-laying and oiling purposes. Gravity sprinklers depend on the weight of the water for discharge. Pressure flushers use engine-driven pumps.

MANUFACTURERS: MUNICIPAL SUPPLY CO., SOUTH BEND, IND.; CHAS. HVASS & CO., N. Y.



Snow Plows

There are many types and sizes of snow plows, varying in construction, method of operation and point of location on the truck. Two general types, blade and V-shaped, are offered in different heights, lengths and flares to suit the requirements of service. Features of construction include method of lift, manual or pneumatic, speed of lift, automatic blade release mechanism, and adjustments for clearance and plowing angles.

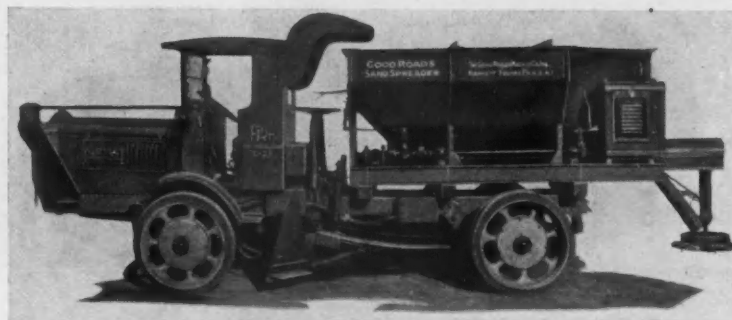
MANUFACTURERS: GOOD ROADS MACHINERY CO., KENNETT SQUARE, PA.; BAKER MFG. CO., SPRINGFIELD, ILL.; UTILITY SUPPLY CO., CLINTONVILLE, WIS.; THE HEIL CO., MILWAUKEE, WIS.; MAINE STEEL PRODUCTS CO., PORTLAND, ME.; ROTARY SNOW PLOW CO., MINNEAPOLIS



Sand and Chip Spreaders

Spreaders for new road construction and maintenance are obtainable as a unit with the body or as a separate attachment. The former comprises a body, available in sizes up to 6 cu. yd., a screw conveyor operating in a trough at the bottom of the body and driven by an independent engine and a flat disk spreader driven by bevel gears at about 100 r.p.m. The attachment embodies a hopper and a revolving cone mounted on two wheels. Attached to a dump truck, material flows by gravity from the truck into the hopper and then onto the cone.

MANUFACTURERS: CHAS. HVASS & CO., INC., NEW YORK CITY; GOOD ROADS MACHINERY CO., KENNETT SQUARE, PA.; UNIVERSAL ROAD MACHINE CO., KINGSTON, N. Y.



SCHACHT



INTRODUCING NEW PEAKS OF VALUE—BEAUTY—PERFORMANCE!

THE NEW SCHACHT DELUXE MODELS

Surpassing all previous standards of performance and beauty... exemplifying all that is latest in automotive engineering... each model of the New SCHACHT DeLuxe Series rides at the peak of motor truck value.

In completeness of equipment, in snap, stamina, speed... plus super-style... the New SCHACHT DeLuxe Series is making motor truck history. Here is the type of modern truck everyone has been waiting for the year 1930 to bring forth. The line is complete—capacities from 1½ to 7½ tons—with a buying appeal that reduces sales resistance to the minimum.

Dealers! The SCHACHT franchise offers great selling opportunities. Write or wire for details.



DELUXE
SERIES

New DeLuxe Series 20—Capacity 2 Tons—Six-cylinder motor, rubber mounted—3 3/8" bore—4 3/8" stroke—66 horsepower—7-bearing crankshaft—nickel iron cylinders—Timken full-floating bevel gear rear axle—multiple disc clutch—heavy duty 4-speed transmission—6" pressed steel frame, 1/4" thick—fish plates—Ross cam and lever steering—four-wheel brakes, Lockheed—helper springs—20 x 7.50 heavy duty balloon tires with duals rear on Budd wheels.

Chassis price includes full electrical equipment, special paint job, balloon tires, speedometer, and bumper. Radiator, headlights, cowl lights, and bumper chromium plated. Weight of chassis and cab 4500 lbs. Optional wheelbases.

NOTE THESE FEATURES

New Cowl Lights
Specially Designed
Headlights
New Full Crown Fenders
Balloon Tires
Fish Plates on Frame
Many other important
advancements in engi-
neering and design.

THE LEBLOND-SCHACHT TRUCK CO., CINCINNATI, OHIO

Successful Motor Truck Manufacturers for Over 20 Years.

20 YEARS WILL TELL! NEW SCHACHT DELUXE SERIES UNMATCHABLE IN APPEARANCE—IN VALUE

A modern truck for modern needs!... That describes each model of the New SCHACHT DeLuxe Series... Backed by 20 years of experience in making better motor trucks. Strength—power—speed—and BEAUTY—at a price which can't be duplicated for value. Here are quick sales for the dealer... supreme satisfaction to the owner.

NOTE THESE FEATURES

New Cowl Lights
Specially Designed
Headlights
New Full Crown Fenders
Balloon Tires
Fish Plates on Frame
Many other important
advancements in engi-
neering and design.

New DeLuxe Series 25—Capacity 3 Tons—Six-cylinder motor, rubber mounted— $3\frac{3}{4}$ " bore— $4\frac{1}{2}$ " stroke—68 horsepower—7-bearing crankshaft—nickel iron cylinders—Timken full floating bevel gear rear axle—multiple disc clutch—heavy duty 4-speed transmission—7" pressed steel frame, $\frac{1}{4}$ " thick—fish plates—Ross cam and lever steering—four-wheel brakes, Lockheed with B-K booster—helper springs—radius rods—20 x 8.25 heavy duty balloon tires with duals rear on Budd wheels.

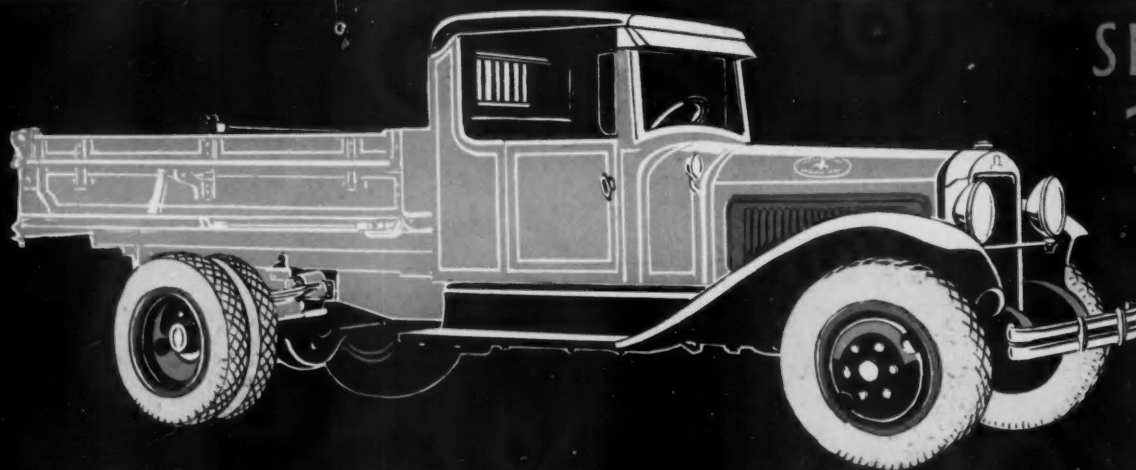
Chassis price includes full electrical equipment, special paint job, balloon tires, speedometer, and bumper. Radiator, headlights, cowl lights, and bumper chromium plated. Weight of chassis and cab 5600 lbs. Optional wheelbases.



DELUXE SERIES

THE LEBLOND-SCHACHT TRUCK CO., CINCINNATI, OHIO

Successful Motor Truck Manufacturers for Over 20 Years.



SERIES
25

SCHACHT

EXCELS IN PERFORMANCE—IN SMARTNESS NEW SCHACHT DELUXE SERIES 30

The New SCHACHT DeLuxe Series has been developed as the super-value of 1930 in the motor truck field. In performance—in appearance—in price—the new DeLuxe SCHACHT Trucks challenge comparison. Designed in accordance with the latest engineering trends, they embody every advanced feature and item of equipment that contributes to performance and value.

Priced for complete satisfaction to dealer and buyer... and backed by 20 years of motor truck success!



DELUXE SERIES

New DeLuxe Series 30—Capacity 4 Tons—Six-cylinder motor, rubber mounted—4" bore—4½" stroke—73 horsepower—7-bearing crankshaft—nickel iron cylinders—full floating double reduction rear axle—multiple disc clutch—heavy duty 4-speed transmission—7" pressed steel frame, ¼" thick—Ross cam and lever steering—four-wheel Lockheed brakes with B-K booster—helper springs—radius rods—fish plates—20x9 heavy duty balloon tires with duals rear on Budd wheels.

Chassis price includes full electrical equipment, special paint job, balloon tires, speedometer, and bumper. Radiator, headlights, cowl lights, and bumper chromium plated. Weight of chassis and cab 6500 lbs. Optional wheelbases.

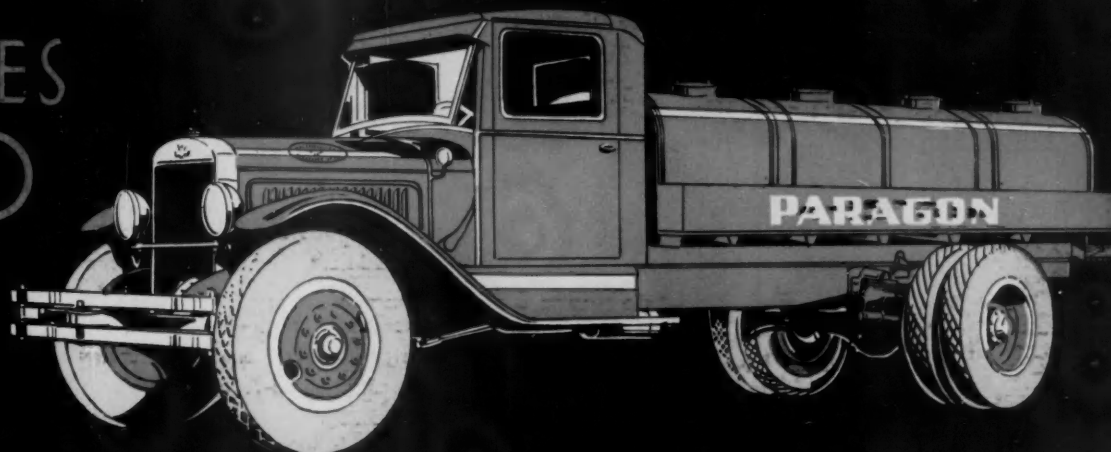
NOTE THESE FEATURES

New Cowl Lights
Specially Designed
Headlights
New Full Crown Fenders
Balloon Tires
Fish Plates on Frame
Many other important
advancements in engi-
neering and design.

THE LEBLOND-SCHACHT TRUCK CO., CINCINNATI, OHIO

Successful Motor Truck Manufacturers for Over 20 Years.

SERIES
30



SCHACHT

SCHACHT

SERIES
40



EXPRESSING THE SCHACHT CREED—

A SUPERIOR TRUCK SHOULD LOOK SUPERIOR

The New SCHACHT DeLuxe Series . . . in beauty of appearance . . . in completeness of equipment . . . in reflection of the latest engineering trends . . . achieves new heights of motor truck value. With power enough for any job . . . a range of speed for any haul . . . ruggedness that endures . . . the New DeLuxe SCHACHT Trucks—with capacities from $1\frac{1}{2}$ to $7\frac{1}{2}$ tons—will set a new high standard of performance. Here are trucks that look superior—and are superior!

The SCHACHT Truck franchise opens the door to new dealer profits. Write or wire to-day for details.



DELUXE
SERIES

New DeLuxe Series 40—Capacity 5 Tons—Six-cylinder motor, rubber mounted— $4\frac{1}{8}$ " bore— $4\frac{1}{2}$ " stroke—80 horsepower—7-bearing crankshaft—nickel iron cylinders—full floating double reduction rear axle—multiple disc clutch—heavy duty 4-speed transmission—8" pressed steel frame, $\frac{1}{4}$ " thick—fish plates—Ross cam and lever steering—four-wheel Lockheed brakes with B-K booster—helper springs—radius rods—20 x 9.75 heavy duty balloon tires with duals rear on Budd wheels.

Chassis price includes full electrical equipment, special paint job, balloon tires, speedometer, and bumper. Radiator, headlights, cowl lights, and bumper chromium plated. Weight of chassis and cab 7000 lbs. Optional wheelbases.

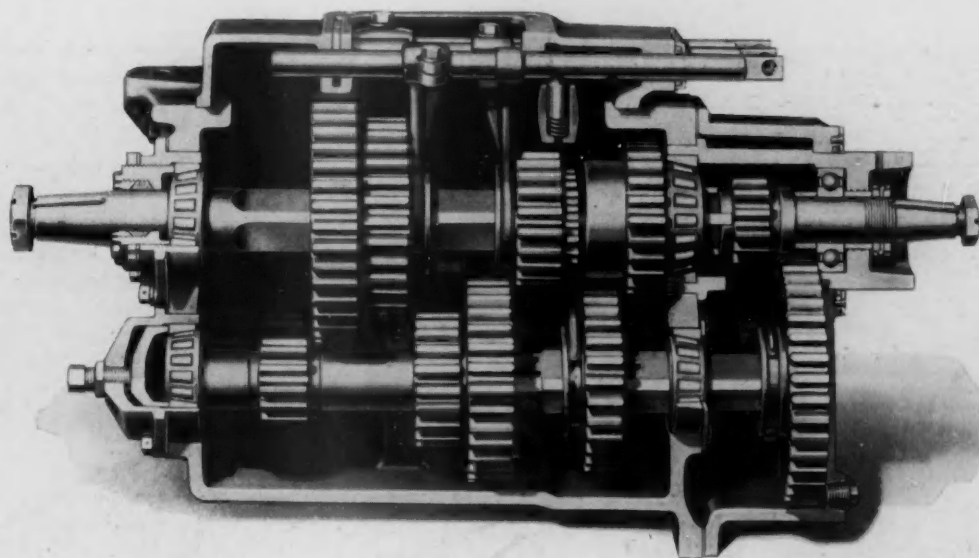
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New Full Crown Fenders
Balloon Tires
Fish Plates on Frame
Many other important
advancements in engi-
neering and design.

THE LEBLOND-SCHACHT TRUCK CO., CINCINNATI, OHIO

Successful Motor Truck Manufacturers for Over 20 Years.

BROWN-LIPE TRANSMISSION GIVES PEAK PERFORMANCE



SCHACHT Trucks, equipped with Brown-Lipe Clutch and Transmission are geared to take care of the peak demand on operation and performance. Back of each Brown-Lipe unit is an amount of research and engineering work far beyond the average. The result is a clutch and transmission that have no weak parts. To the truck user this means a guarantee of longer life and freedom from replacement needs.

Brown-Lipe equipped, means freedom from clutch and transmission trouble.



ASSOCIATED *Spicer* COMPANIES

**BROWN-LIPE
CLUTCHES and
TRANSMISSIONS**

BROWN-LIPE GEAR CO.
SYRACUSE NEW YORK

*The Commercial Car Journal
and Operation & Maintenance*

**SALISBURY
FRONT and REAR
AXLES**

SPICER MANUFACTURING CORP.
TOLEDO OHIO.

**SPICER
UNIVERSAL
JOINTS**

PARISH PRESSED STEEL CO.
READING PENNA.

**PARISH
FRAMES and
STAMPINGS**

April, 1930

THESE
URES

ights
signed

own Fenders

n Frame
important
s in engi-
design.

OHIO

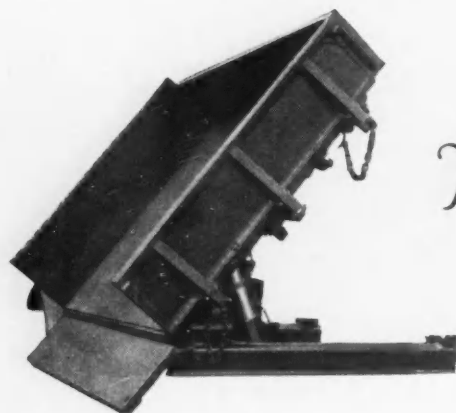
UNSURPASSED BODY FLEXIBILITY

The "Commercial" Model "F"

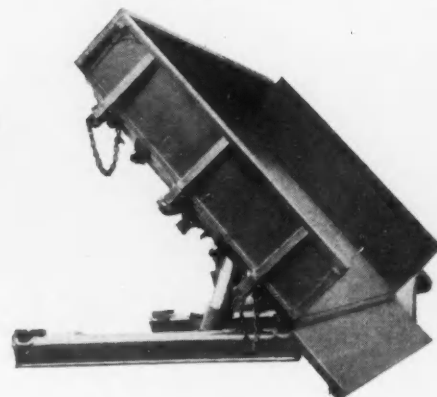
REAR DUMP BODY combines a number of unique features of value to operators of Schacht Trucks.



Down Folding Tail Gate
Double acting Tail Gate
Knock down Construction
Complete subframe—metal clad sills
Riveted, welded and bolted construction.
Wide hinge spacing
Dumped by the same telescoping hydraulic hoist so successfully applied to the 3-Way shown below.

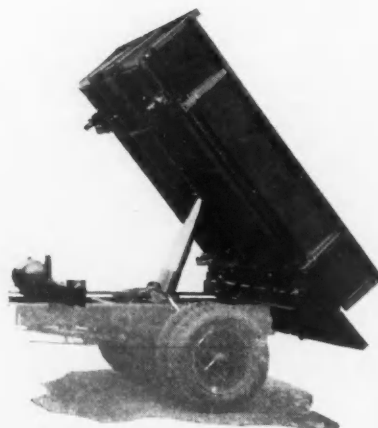


Gives the utmost flexibility to the Schacht.



Outstanding 3-way Features

Down Folding Side Gates—automatic
Down Folding Tail Gate—automatic
Double Acting Tail Gate
Spreader
Low Gate Height
Cab Control
Gates may be laid flat
Low shoveling height
Increases chassis efficiency.



"Commercial" Hoist Features

Single or Twin Cylinder
Telescopic, 3 sleeves
Hydraulic
Double trunnioned, both top and bottom
Single
Rapid
Powerful
Direct lift at center of Body
Self adjusting packing

THE COMMERCIAL SHEARING & STAMPING CO.
Youngstown, Ohio

PROVED BY PUNISHING SERVICE

*Fuller Transmission
drives Truck and Mixer*



THE Fuller 4-speed Transmission on this LeBlond-Schacht Truck has a power take-off that drives the mixer. Both truck and mixer operate simultaneously—it's *real* punishing service. There are more than a dozen of these units on which Avril Tru-Batch Concrete agitators have been mounted—repeat orders that show a job well done.

Fuller Transmissions are built for hard service by the largest exclusive builder of Transmissions for Commercial Vehicles. 28 years of quality experience are back of Fuller performance. An engineer will gladly discuss your transmission requirements. Write for an interesting booklet, "Low Cost Transmission Service."

FULLER & SONS MFG. COMPANY

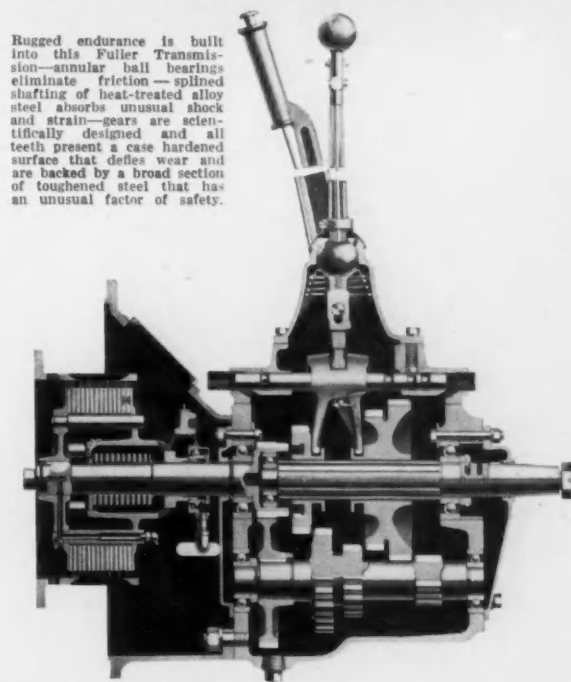
Division Unit Corporation of America
Bankers Building, Milwaukee, Wis.

FULLER
STANDARD AND SPECIAL
TRANSMISSIONS

FROM ROUGH BILLET



TO FINISHED PRODUCT

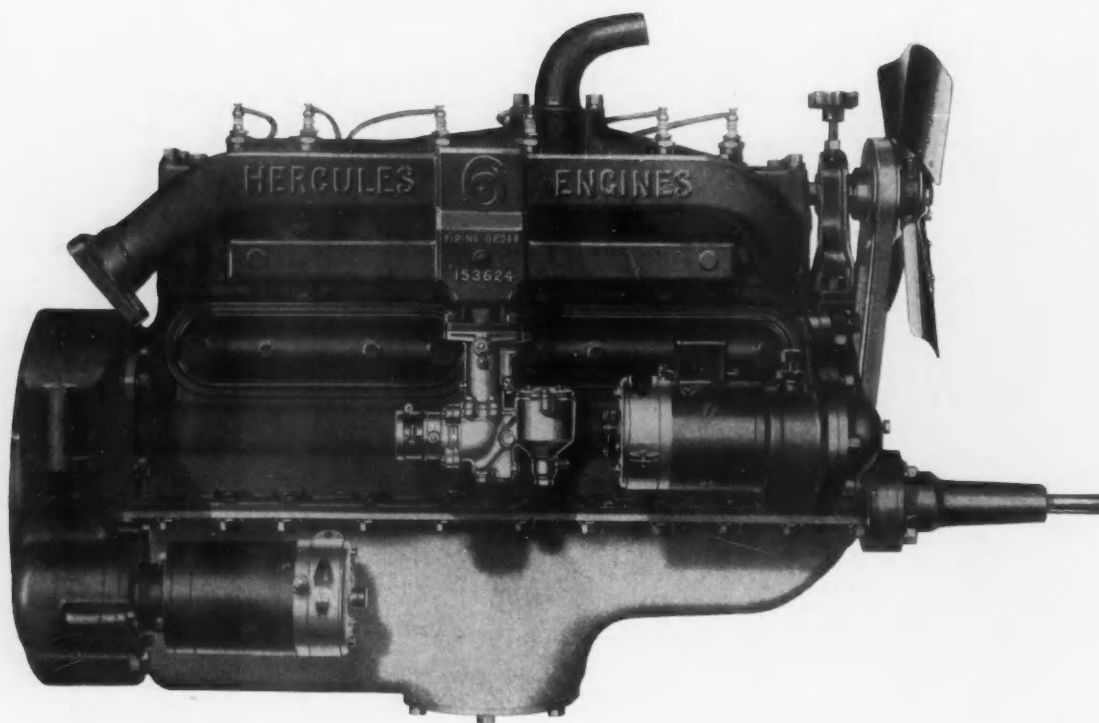


Rugged endurance is built into this Fuller Transmission—annular ball bearings eliminate friction—splined shafting of heat-treated alloy steel absorbs unusual shock and strain—gears are scientifically designed and all teeth present a case hardened surface that defies wear and are backed by a broad section of toughened steel that has an unusual factor of safety.



RELIABILITY

Distinguishes Hercules Engines and Schacht Trucks



Noted for power, stamina and reliability, Hercules Engines, used in SCHACHT Series 25 and Series 40, have achieved a striking record of performance. Hercules Engines are simple in design, advanced in engineering, always modern. On motor buses and trucks, results have demonstrated time and again that Hercules Engines are unsurpassed in the heavy duty field.

HERCULES MOTORS CORPORATION
CANTON, OHIO, U. S. A.

WEST COAST BRANCH
LOS ANGELES, CALIF.

MID-CONTINENT BRANCH
TULSA, OKLA.

April, 1930

*The Commercial Car Journal
and Operation & Maintenance*

HIGHLAND CABS

used on Schacht Trucks
for
STRENGTH and SMARTNESS



The Highland Cabs used on SCHACHT Trucks have been specially designed to harmonize with the clean lines of the chassis and to insure the comfort of the driver.

The semi-enclosed cab as shown, is of steel, including all-steel roof, and is recommended especially for dump truck work.

The full Coupe Cab is standard for all models, and is an extra fine cab both as to finish and design.

The Highland Rocker Sill 3-point mounting relieves the cab of strains and stress when driving over rough roads or working on uneven ground.

Clean-cut lines, rounded corners, clear vision, unusual strength, distinguish all Highland Cabs.



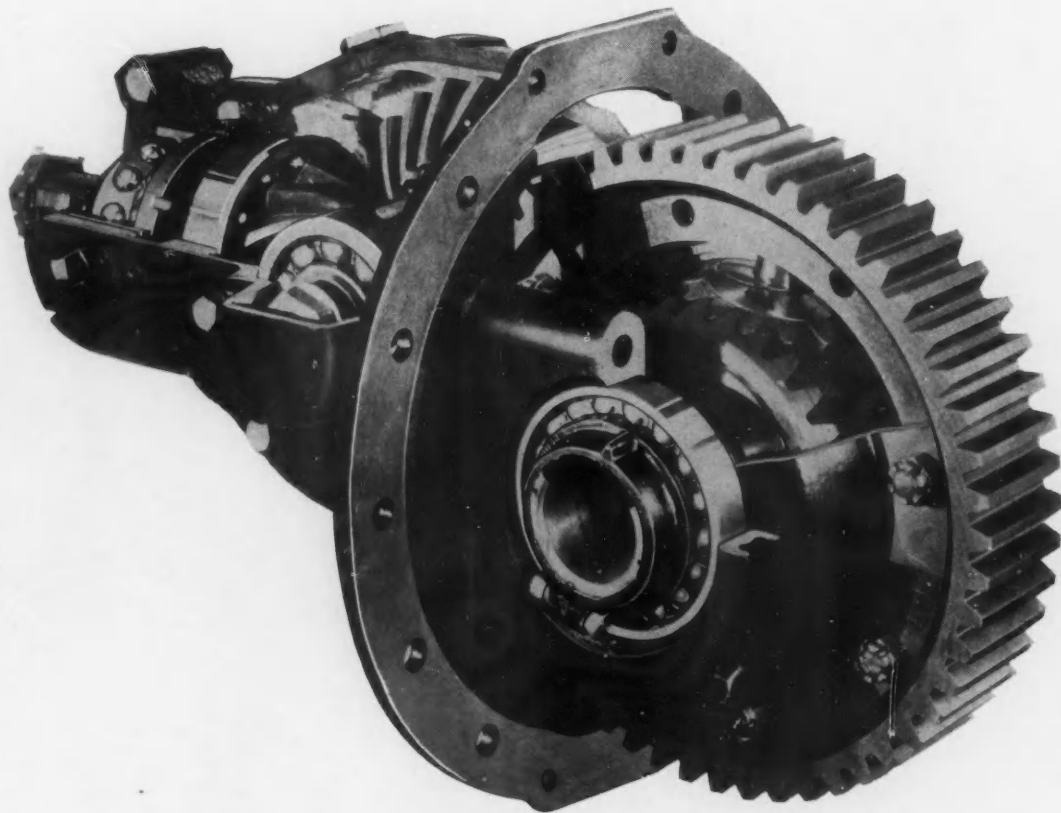
THE HIGHLAND BODY MFG. COMPANY
ELMWOOD PLACE **CINCINNATI, OHIO**

WISCONSIN AXLES

Selected for Schacht Trucks

EXCEL

In Durability and Low Upkeep Cost



In design, materials, and workmanship, Wisconsin axles, specially selected for certain SCHACHT Trucks, stand supreme. Stubborn pulling power on steep grades—lively acceleration on concrete—afford proof in Wisconsin equipped trucks that engine power is being efficiently transmitted to the driving wheels. Long years of experience, accuracy of design, precision workmanship, are proven in the better performance and longer life of trucks and buses equipped with Wisconsin Axles.

WISCONSIN AXLE COMPANY
OSHKOSH, WIS.

BLAH-BLAH! WON'T SELL MOTOR TRUCKS

CONTINUED FROM PAGE 19

As a result of the conversation, he now uses a truck and trailer arrangement that is unique in some respects. His present equipment consists of a 7-ton truck and a 5-ton trailer because his problem of transportation was given intelligent thought and investigation. Blah-blah just couldn't fill the bill. The 5-ton trailer has an hydraulic airline brake operated from the truck brake pedal. The usual trouble of air in the line has been overcome by the use of air valves that check both ways. An end-gate was constructed on the front end of the trailer body, which, when let down, meets a similar end-gate on the rear of the truck body, making a platform between the two vehicles that simplifies shifting the load from trailer to truck or vice versa.

If a salesman can assist an operator in working out such knotty problems of transportation, he can forget blah. It's not necessary.

This might seem to be so simple as to be obvious to every salesman. But it isn't. The other day a man applied at my desk for a job as truck salesman. He seemed to have all the prerequisites. Fine personality, good talker, and he was large of physique. I like my truck salesmen *BIG!* But that's another story. However, this man began to talk too freely for his own good. His professed sales credo was, "It doesn't make any difference what a truck salesman says, so long as he says it with conviction, and with enough punch. The prospect doesn't know enough about trucks to check up, anyway."

I told him I couldn't subscribe to his policy. He got a job elsewhere.

That type of salesman is not hard competition, except that his misstatements and ignorance undermine confidence in the entire truck industry. And it is altogether too prevalent. Not long ago one of my men asked for some help on a three-truck prospect. It was understood that this operator was going to close a deal for three trucks that very afternoon. We went out to the plant. We were told that the old bodies would be retained and mounted on 1½-ton chassis. A score or more of salesmen had been talking 1½-ton units for the simple reason that they had concluded that that was the maximum possibility of the truck budget.

"I LEARNED THAT HIS LOADS VARIED FROM DAY TO DAY, SO RECOMMENDED A SPECIAL TRUCK AND TRAILER ARRANGEMENT."

Without any comments I pulled out a Farrand Rapid Rule—the steel tape that shoots out of a small receptacle in a most uncanny manner. Incidentally, I believe that this little tool has aided me to more truck sales than any other one thing. The reason is simple. It focuses attention on the mechanical requirements of the job at hand. It makes the prospect think in terms of sizes and dimensions for his particular hauling problems.

In this case it was a matter of fitting a chassis to a certain body. The steel tape told me that the bodies were too long for the standard 1½-ton chassis. We learned that the usual load was 6000 lb. The opening argument resolved itself to tire requirements. A little figuring showed that the weight of the truck, the load and the body would aggregate 13,300 lb., which would be too much for the 32 x 6 tires, according to figures published by tire companies. A little more figuring showed that the cost of altering the wheelbase of the 1½-ton unit, securing larger tires, including duals on the rear, plus overload springs, would increase the cost of the 1½-ton unit to within a very little of the 2-ton price. We emphasized the fact that overworking and overloading a 1½-ton unit would, no doubt, prove a disastrous economy after a couple of years, when the need for new trucks would become apparent.

A steel rule, a pencil and paper did all the talking.

We concluded by summarizing the fact that we would rather not sell a truck than the wrong size for a particular job. It would just bring grief.

The elderly gentleman, who was president of the concern, perhaps, didn't know a crankshaft from a piston, but he did know figures. He shook his head. Two-ton units? That was a new idea. They had always used 1½-ton equipment.

"Why didn't these other salesmen tell me that?" he growled.

We couldn't answer.

Trade-in offers on the old equipment ranged from \$600 to over \$1,000.

We made an offer of \$550 and sold three 2-ton jobs.

At another time a hydraulic hoist sold a truck and turned a bankrupt business into a profitable one. Of course, it wasn't the hoist alone, because the human element enters in. But the man needed the hoist, a steel body and a modern truck to give him the punch that makes for success. This man was a fuel dealer. His lone truck was a dilapidated affair with a wooden body.

"How's business?" I asked the man slouched over a counter.

"Rotten!" The answer was just what I expected.

"Of course it is, with that kind of antiquated equipment. How do you expect to compete with that kind of an outfit. You need speed, and less elbow grease."

It is not necessary, nor wise, to repeat our conversation, but suffice it to say that I said more brutal things than I would under ordinary circumstances. I pushed the man behind the wheel. Made him drive a steel-bodied truck with a hydraulic hoist. He smiled as the car sped up a hill. For the moment he was a new man, able to conquer competition. He inspected the hoist. How simple! No shoveling of coal, quick deliveries and fewer backaches. It was all very tempting.

Before I left he had signed the contract. But that evening he had to hustle collections to make the down payment. He was as near broke as a man dares to be. Within a few months he had cleared a \$4,500 mortgage off his home and salvaged another real estate property that was about ready for the sheriff's hammer. Today he operates five 3-ton jobs with hoists and steel bodies.

Special trailer equipment, winches, hoists, special body requirements . . . they are all welcome grist to the salesman's mill. That is, to the salesman who sees farther than the battle of words, the dotted line, another order. In fact, the special transportation problem makes selling easier, for it gives the salesman something more to talk about than the old bubbles: "We've got the best truck made"; "our truck will do everything," etc., that makes the truck buyer so bewildered and so utterly bored.

The salesman who can solve a knotty delivery problem never lacks for friends . . . and orders.



EQUIPMENT MEN CAN HELP SELL CHASSIS

CONTINUED FROM PAGE 21

the consultant—a specialist. The consultant never discredits the physician, he merely agrees to, or suggests a change in procedure.

The equipment specialist has the organization to sell and service truck equipment, backed by years of experience, plant and capital invested. So why should not the truck salesman take advantage of the engineering and sales help—his for the asking?

The same facilities available to the city salesmen are available to small town truck dealers and salesmen. The only difference is that the city salesman has a slight time advantage in being able to contact sooner. This, however, is not a serious drawback, because inquiries received by reputable equipment houses from the field by wire, telephone or special delivery receive just as prompt and thorough attention as though they were made in person. Furthermore, equipment distributors travel their own salesmen, who are constantly in the field contacting every truck dealer in the territory at regular intervals. The equipment salesman's services are always available. If he is not in the town when needed, a wire will bring him or another from the city.

Every equipment house of long standing has in its files records of special adaptations of standard equipment which when "engineered" became the means of closing the prospect for the truck salesman. There are many concrete examples in the experience of such houses indicating the value to truck salesmen of such cooperation. Here are a few taken from our own experience:

A truck salesman came to us with a problem of equipment for a telephone company. The telephone maintenance engineer wanted a pump and winch mounted on the same truck. The truck was a light one with only one light power takeoff attachment. The pump must rotate at 900 r.p.m., the winch at 25 r.p.m. The pump was required for pumping out flooded manholes or underground junction houses, while the winch was wanted to pull cable through conduit. The telephone maintenance engineer knew what he wanted, the truck salesman knew and brought us the problem.

Experience, a bit of engineering, plus the time element, and a sample job was produced. It passed tests and resulted in orders for several trucks.

Recently a rigger wanted on his trucks two independent winches, each to perform a different duty, either running in unison or independently. His problem was met by mounting a light capstan on the side of the body for light, fast lifts, and a heavy-duty

drum winch mounted back of the cab for heavy-duty service.

Along came another truck salesman. "My customer wants a fleet of dump bodies and hoists, each with a drum winch so arranged that the dump body would be flush against the

HOISTS APPLY POWER TO TRUCK UNLOADING

CONTINUED FROM PAGE 52

horizontal motion from the piston to raising the dump body. Vertical cylinders are placed at forward end of the body, lifting directly through cables, or beneath the body, in which case upward thrust is transmitted directly to the body understructure.

Two and three-way dumping calls for but slight changes in vertical hoists as lifting is required in any case. For two-way dumping the hoist mechanism must be free to swing from side to side and a swivel or trunnion mounting provides this freedom. Three-way dumping calls for motion of the hoist to either side and to the rear and a double trunnion mounting like a universal joint is embodied in the hoist. Direction of dumping is controlled by latches and hinges on the body. See Fig. 11, page 41.

Ability to discharge loads several feet above the ground is required for coal delivery and dumping concrete in forms, in many instances. High lift hoists first elevate the body and then dump it, the body being supported on hinged arms or crossed members. For all-around service a high lift body may be arranged to dump at ordinary level.

For loading ice into refrigerator cars and other special jobs, a high lift non-dumping body is sometimes required. These bodies remain in a level position throughout their range of lift. This position can be brought about on a high lift hoist by modification of the lifting and supporting members. Another method is to use four screws, one at each corner of the body, all operated by power.

One type of hoist which is not a partner, or even an associate of a dump body, is the tower hoist. These hoists are used to elevate working platforms for erecting and maintaining overhead structures principally in the public utility field. The forerunner of the modern truck repair tower was the old horse-drawn tower wagon of early trolley car days. Erection

cab and mounted not higher from the chassis frame than the standard hoist mounting provided. A little time—approved blueprints, and the order was secured for six units. This was another case in which there was only one power takeoff connection and two independent drives required.

And so on, including a record of hundreds of ideas which after careful consideration were proved to prospects as impracticable, thereby saving the user useless expenditure and the truck salesman the embarrassment of having to be the one to tell the prospect that his idea was not feasible.

and repair of electric traffic lights is a field of usefulness for truck towers which is becoming more and more important.

As with other types of hoists, the tower outfits are offered in mechanical and hydraulic designs. Because the height of lift is considerable the hydraulic types are made with telescoping cylinders and trunk pistons. The cylinder takes up but little space on the chassis as it is bolted to the frame by means of a base plate which extends under the body.

Market Just Scratched Equipment Makers Say

CONTINUED FROM PAGE 17

otherwise can a manufacturer tell whether his sales are satisfactory or not? In most businesses potential markets have been appraised and the information has been turned to practical and profitable use. And it is an earnest suggestion that special truck equipment manufacturers start immediately to create such an estimate—not only for the United States, but for each zone. Even though at first it may be impossible to get a reasonably accurate estimate, it is well to make the best calculations possible with the facilities at hand. Each year that this system is used, the estimate will get closer and closer to the actual facts and will allow the manufacturer and his distributing organization to steer a clearer sales course.

"If the services of the Research Department of this publication can be of help in this connection, manufacturers are urged to utilize them. We are just serious enough about this proposition of estimating potential markets to turn over our facilities to each manufacturer in order to help secure information which is so indispensable in this period of intensive business competition."

Written to Truck Manufacturers who do *NOT* equip with LOCKHEED HYDRAULICS



May we respectfully suggest to truck manufacturers who do not now equip with Lockheed Hydraulic Four Wheel Brakes, that they consult their friends among the 65 truck manufacturers who *do* equip with Lockheeds?

These 65 manufacturers will say many things in praise of Lockheed Hydraulics which might seem immodest if they came from us.

More important still, they will be able to give an accurate and adequate conception of the important *upward* effect upon the sales curve, which in so many instances has accompanied the adoption of Lockheed Hydraulics.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.



LOCKHEED HYDRAULIC

Four BRAKES *Wheel*

THE TRUCK WORLD IS EQUIPMENT CONSCIOUS

CONTINUED FROM PAGE 15

Cabs, panels, stakes and express—but no more. And they came like pulling teeth, as any old-timer knows. Of course there was a reason, but in this instance the reason didn't solve any problems for the workers in the field.

But there has always been one outstanding thing about the truck industry, i.e., that nothing in the industry was ever so wrong but what it righted itself eventually.

And now the leading companies are giving nearly as much attention to equipment as to the chassis. They learned a lesson. And it's up to the salesman now.

We used to take one chassis and sell it for anything or everything, then fit a body to it. Now, with a variety of chassis, the salesman who is worthy of a place in the profession first finds what is to be hauled, what its shape and weight is, then sizes the body to the load, and next sizes the chassis to the body.

Which means that to sell trucks today, if successfully, the salesman has got to know at least as much as a wall-paper and paint peddler. And if he is smart he will figure out the outfit like a heating engineer estimates his furnace requirements.

Naturally, no chassis maker with a substantial production can carry this multitude of special bodies, but he does align himself with the better builders of them, and between the two a service almost equal to standardization is worked out for the leading truck consumers. A factory-recommended design is the thing.

The salesman first must learn the operation of his customer, and if he will use a couple of good rules he can't go wrong.

He must appreciate truck operation from the standpoint of customer service, because the frequency and extent of such service regulates the size of load, hence the size of body and chassis.

If he will treat the load the same as if it were people who were being taken somewhere, and remember that there are people waiting for the goods just as impatiently as if the goods were people waiting to get to their destination, it will help him analyze the actual service requirement the better to recommend the size, and have the investment in prudent ratio to the value of such service. He must be aware that the movement must be such as to eliminate delays at one point which cause congestion at another, whether it be in mother's kitchen or father's warehouse.

Then the salesman will do well to apply the trailer test to every hauling

problem in the medium and heavy-duty classes. (If you don't know trailers, you better learn about them at once, because inside of two years even a truck driver won't get a job if he doesn't know how to drive a trailer.) By the trailer test is meant that you must ask yourself what results would follow if you did recommend the trailer. And whether you recommend a trailer or not, it forces you into thinking more clearly about the problem and its solution.

To sell trucks today without guessing at what you are doing you must know these things: Tire capacities for weight distribution; load distribution from the chassis standpoint; what are the lightest body materials commensurate with strength and endurance so that deadweight will not consume revenue earning capacity; trailer applications; time-saving devices and their effect on the mileage output of the vehicle; when governors are and are not practical; when to recommend high-pressure or balloon tires; the

PULLING AND LIFTING DEVICES SAVE POWER

CONTINUED FROM PAGE 44

band brake is provided and this is operated either by a pedal or by a lever which engages the clutch. Winches of this type are controlled by an operator standing beside them.

Winches are rated by length and diameter of cable they will hold, and the amount of pull they are designed to develop. Capacity given in pounds pull on a single line represents the pulling ability for which a winch is designed, not the power of the truck engine. The amount of power required depends upon the pull and speed of winch line. A light pull can be given at higher speed with a given amount of power than a heavy pull, and heavy pulls can be secured even with moderate power at slow speeds. For most operations a truck engine provides an abundance of power. Transmitted through suitable gearing in the transmission or power take-off, this power is delivered in proper ratio of torque and speed to the winch power shaft. The field of application of different types of power take-offs is covered in another article on page 48 of this issue.

Derricks and cranes are lifting devices which are carried on trucks. They may be used to load heavy things

table of weights and measures for containers and materials, etc.

If you are trying to sell trucks and are just getting along, ignorance of the above is doubtless the reason.

A truck is a machine, and your job is to make it produce the greatest output possible by using the right equipment for handling the payload.

Just the other day I heard a salesman, demonstrating a dump body that heaved from right, left or rear, tell the customer, "You wouldn't buy a dump job that could be loaded only from one side, so why buy one that can be unloaded from just one side?"

Another salesman was selling a trailer with an oil tank and was demonstrating how the trailerized unit could, by jack-knifing, get within 10 ft. of the storage tank against 35 ft. with a truck without trailer.

Another was presenting a roll-off lumber body, and was showing how to save money by saving time.

The truck salesman's job today is to move the most goods per hour by losing the least amount of time loading and unloading and by traveling between source and terminal the fastest time with safety and law.

You are just started on your way when you cover the chassis; you can't finish the job until you've recommended the right equipment.

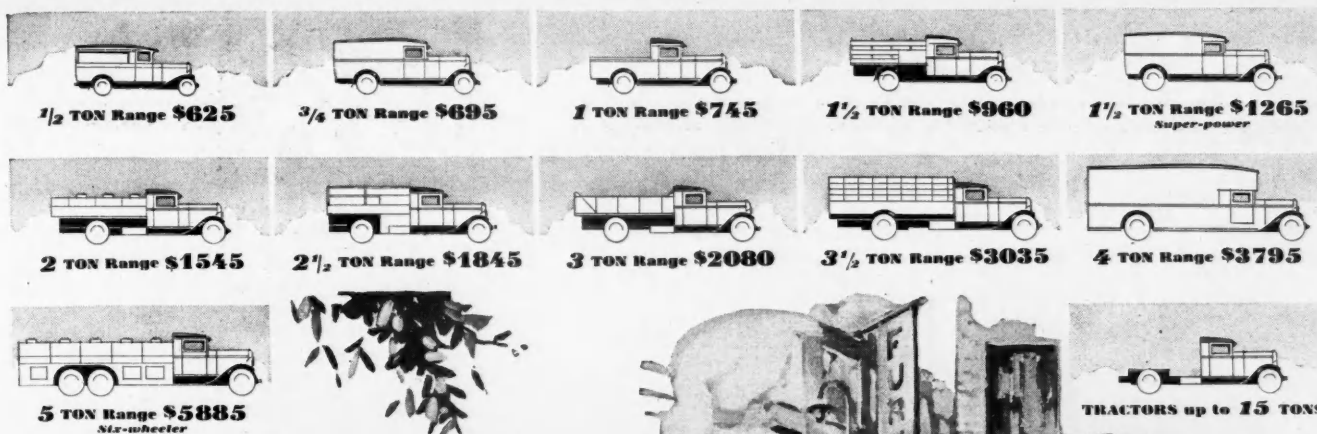
This is the age of speed.

on the body of a truck or to suspend and carry objects from place to place. Power to operate them is derived from winches or capstans.

Truck cranes may be mounted anywhere on a truck chassis, position at rear of cab and at end of body being common. They are frequently made demountable to leave the body free for other service when desired. Upright mast and boom may be of tubing or structural steel to meet the opposing requirements of strength and light weight. Radius of the boom is adjusted by changing the angle between boom and mast. With a double winch this can be done by power, but adjusting the position of the boom by hand is more frequently done.

Pole derricks are used for setting poles and lamp standards. They usually comprise two side legs and a middle leg, and can be assembled in a few minutes. The middle leg is telescoping to vary the amount of overhang of the pulley and winch line.

Telescoping legs, or jacks, are required under the chassis frame when very heavy weights are lifted by cranes or derricks. These legs fold out of the way when not in use, and are lowered when required.



(All prices given here chassis only, f. o. b. Pontiac, Michigan)



ONE TON RANGE
\$745

Model T-17A; STRAIGHT RATING, 6,500 lbs.
(total gross weight, including load); price
chassis only, f. o. b. Pontiac, Michigan.

All Truck !

A Value typical of all 1930 GENERAL MOTORS TRUCKS

A 6-inch frame with six cross members, is one of the first superiorities you find in comparing this truck with others. It is a real truck frame!

Load distribution is correct; no inefficient, excess body-overhang.

The six cylinder engine gives 58 actual horsepower with smoothness and economy that have won world-wide recognition.

Clutch, transmission, axles, springs, are all real truck units in a real truck. Four wheel brakes have the highest effectiveness in

this field. Every detail of design and construction is there to give hundreds of thousands of low-cost miles.

Only General Motors Trucks could offer such a truck as this at the price asked. Engineering and manufacturing leadership alone make it possible.

This is true of the whole 1930 line. There are 11 basic models, 33 chassis, 118 different types. Every one is a modern, six-cylinder truck.

There is no truck line like this, no truck values like these, any-

where else in the world, today.

For truck-owners this fact is loaded with profits and economies. That is why it is a great and profitable opportunity for automotive dealers who seek sound business expansion.

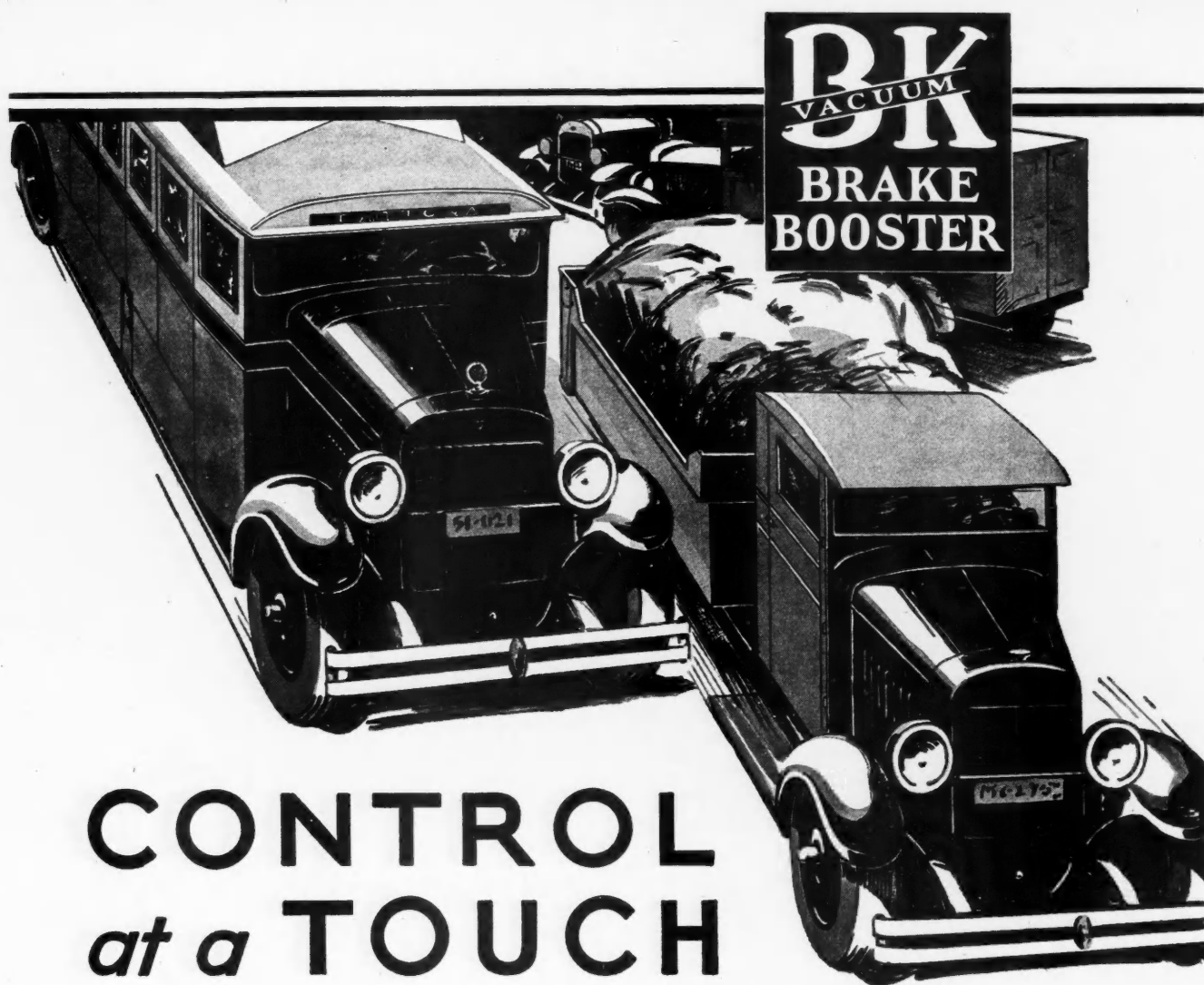
For both truck-owners and dealers, now is the time to investigate!

GENERAL MOTORS TRUCK COMPANY, Pontiac, Michigan (Subsidiary of Yellow Truck & Coach Mfg. Company) ... GENERAL MOTORS TRUCKS ... YELLOW CABS ... COACHES ...

Factory Branches, Distributors, Dealers—in 1500 principal cities and towns.

(Time payments financed at lowest rates by our own Y. M. A. C.)

GENERAL MOTORS TRUCKS



CONTROL at a TOUCH

Saves Money in Transportation

Speed with Safety is the keynote of modern traffic. Speed is safe only in proportion to the ability to stop. The new B-K Vacuum System of applying power to brakes gives control at a touch. This system uses the vacuum from the engine to add power to the foot pressure.

B-K Vacuum Brakes not only multiply pedal pressure many times, but give a smooth, automatically equalized application of the brakes that means *certain* quick control.

B-K Vacuum Brakes speed up schedules for trucks and buses—remove fatigue from drivers—save tires—save loads. This system may be applied to all brakes, whether mechanical or hydraulic, without any change in chassis.

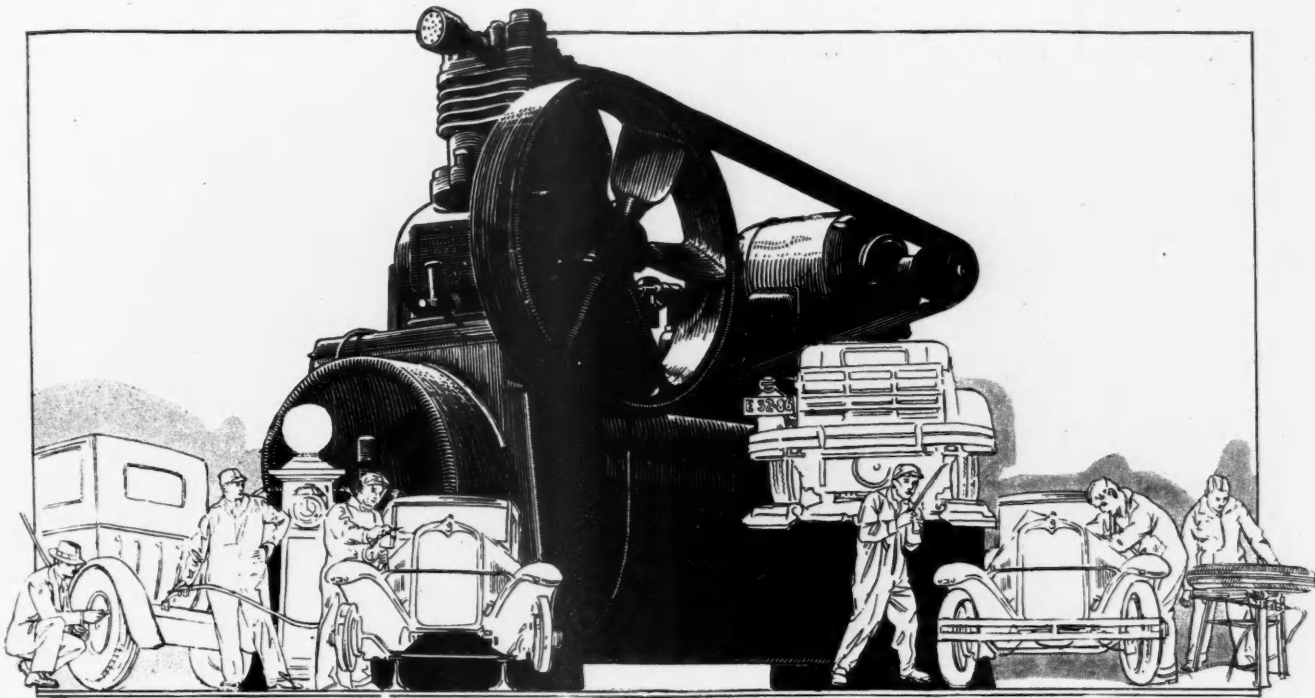
Write for facts and figures stating what trucks you are using.

BRAGG-KLIESRATH CORPORATION

(DIVISION OF BENDIX AVIATION CORPORATION)

Queens Blvd. and Harold Ave. • Long Island City, N. Y.

BRUNNER AIR MULTIPLIES PROFIT



THIS "UNSEEN WORKER" TURNS SERVICE INTO PROFITS

BEHIND the busy scenes of the profit-paying garage or service station stands this vital, yet hidden factor—the Air Compressor. Ever alert and active, this untiring unit supplies automotive service with its very life blood. For compressed air, many-sided in usefulness, is the modern key to successful service.

Greasing, spring oiling, tire inflation and changing, lift operation, motor cleaning—these are only a few of the

services made profitable by Brunner Air Compressors.

"Brunner" stands for economy—that ultimate economy which *always* accompanies a superior product. Brunner skill in pneumatic engineering is embodied in excellence of design and sturdy construction. Every mechanical part is tested; every machine carefully assembled, thoroughly "run in," and finally inspected by competent engineers...

That is why you cannot buy a better air compressor than Brunner. Leadership proves this! Brunner integrity

has been won thru a quarter of a century of honesty and ability in manufacture. Today Brunner is the largest builder of pneumatic automotive equipment in the world!

Besides a complete line of compressors for every automotive need, the Brunner line includes a group of convenient Air Scales—the kind that give continuous, carefree service. The two models shown below have proved themselves successes. Ask your jobber.

BRUNNER AIR SCALE
(Reel Model)



This type of air scale is highly recommended and widely used. Attractive in appearance and service. It is easy to operate: simply set scale at the desired pressure and BrunnerAir does the rest automatically. The hose on this model is self-returning.

BRUNNER MFG. CO.
UTICA, N. Y.

KANSAS CITY, MO.

TORONTO, CAN.

READY FOR YOU!

A copy of the new illustrated Brunner Air Compressor Manual is now awaiting your address. It's a worth-while book for all air compressor users. Free. Write: Dept. S-4.

BRUNNER AIR SCALE
(Model B)



Another popular model. Less costly than the reel type, but gives the same accurate and dependable service.

Equipped, like the Reel Model, with non-varying beam scales—also air filter, electric light to illuminate the beam scales... Model B has an outlet for water supply.

BRUNNER — AIR — COMPRESSORS

A WORLD'S STANDARD OF DEPENDABILITY

TRAILER IS TRUCK'S TRANSPORTATION ALLY

CONTINUED FROM PAGE 28

separate valve in the truck cab or by a remote control valve from the truck brake pull rod. The necessary hose lines are provided with couplings at the forward end of the semi-trailer body. Air brakes as used on the tractor unit may be installed on the trailer and controlled by a valve at the truck cab.

Many operators of semi-trailers prefer separate control for brakes on the trailer unit because in going down long hills it is desirable to have relatively more braking effort on the semi-trailer than on the truck unit. If a sudden and hard application of truck brakes is made with little or no semi-trailer brake application, trailers may swing around to one side or the other, an action which is aptly called "jack-knifing."

Four-wheel trailers are designed to be pulled by trucks carrying loads or behind semi-trailers. They differ from semi-trailers in having wheels to support the front end. Many semi-trailers can be converted into four-wheel trailers by placing a two-wheel dolly under the front in place of the bottom section of the fifth wheel on the tractor unit.

There are two methods of steering four-wheel trailers: fifth wheels and steering knuckles. This fifth wheel construction is similar to that employed on semi-trailers, except that it is not necessary that it be detachable. Reversible four-wheel trailers have two fifth wheels, and may be steered from either end. One end is locked and the other end is used for steering, and this process may be reversed. Steering-knuckle type construction is similar to the front axle of a truck, except that motion of wheels is controlled by the tongue which is connected by suitable means to the steering knuckle arms.

Obviously, a four-wheel type trailer may be made with six wheels if desired to accommodate a very large load or to meet legislative restrictions.

Single or dual tires may be used on semi-trailer or four-wheel trailer wheels. For operating convenience, trailer tires frequently are made the same size as those on the tractor unit, so that one pair may be used anywhere on the outfit.

Pole trailers, unlike semi-trailers and four-wheel trailers, are designed to carry almost half of the load in the rear of the axle. They comprise a dead axle and a pole, which may be adjustable in length. A bolster is placed on the axle for carrying poles or pipes, or similar objects. The bolster may be arranged to swivel at the center and it may be mounted on springs.

Many different types of low-bed trailers have been developed for hauling heavy machinery. Shovels and excavators used in building construction present quite a problem in transportation, and many low-bed trailers are employed for this purpose. A drop-frame semi-trailer is employed for the lighter of these heavy weights, but for extremely heavy loads low-frame trailers with six or more wheels are used.

An unusual type of semi-trailer, which may be pulled by a light truck or passenger car, is shown on page 28. This unit incorporates some of the principles of airplane design, and frame and body are built as a unit. The interior may be fitted as a school bus, traveling store, showroom or horse van.

Equipment Extends Truck Effectiveness

CONTINUED FROM PAGE 16

not equipped to handle the responsibility of obtaining and mounting the equipment himself.

Special truck equipment is becoming an important factor in export truck sales as evidenced by those manufacturers taking this into consideration in their sales promotion work. Literature specially prepared giving boxing dimensions, gross weights, etc., in addition to the usual specifications and recommendations, has proven a real service to the export dealer. He is also materially aided in creating a market for additional truck sales through the factory's ability to ship him the complete unit.

It may be stated that there is need for more cooperation between the truck manufacturer, operator and equipment manufacturers. A better understanding of each other's problems will tend to eliminate a lot of duplicated effort. A more intensive study of the operator's needs and maintenance problems will do much in extending the field of usefulness of commercial vehicles through the application of special equipment.

Tanks Meet Liquid Hauling Problems

CONTINUED FROM PAGE 32

alloys suitable for tank body construction weigh half as much as steel, and this saving may be used to increase net carrying capacity or to reduce dead weight. During the past few months much effort has been expended

in developing aluminum tanks of a wide range of capacities. Tests recently made show that aluminum tanks can survive severe shocks and fires. A compartment tank filled with water and dropped 25 ft. on a steel plate departed quite a bit from cylindrical shape but did not leak. Several large producers of tank bodies are producing, or planning to produce, aluminum tank bodies.

A modern tank truck is something quite different from the bare cylinder mounted on a truck chassis, which served its purpose a few years ago. Present-day motor transportation of liquids calls for equipment which is not only adapted to hauling but is good-looking as well. Without detracting from utility of tank bodies, smart appearance has been attained by reducing overall height, proportioning the tank to the chassis, and placing racks, running boards and skirts to give an impression of lowness. Quite as much attention is given to the color scheme and decoration as to dimensions and contrasting colors, striping and trademark designs are incorporated in a general design which may either be subdued or striking.

New Truck Models of the Month

More than 10 new truck models have been introduced by manufacturers during the past month. A brief review of them follows; greater details will be furnished in the May issue of *COMMERCIAL CAR JOURNAL*:

Autocar announces the addition of three new six-wheelers, equipped with Autocar 101 hp. Blue Streak engines and Timken tandem axles.

Chevrolet has supplemented its commercial car line with a roadster delivery model, listing at \$440 and providing load space in body of 66 in. long, 45 in. wide and 14 in. high.

Diamond T announces that many improvements and refinements have been incorporated in its 2, 2½ and 3-ton models.

Model HH6 is the designation of a new 2½-ton four-wheel drive unit added to the line of the Four Wheel Drive Auto Co.

Hug has brought out a new 10-ton six-wheel, two-wheel drive truck, termed Model 98, designed specially for lumber service.

Relay has added a 5-ton chassis, Series 100, to its line, which has a low frame height of 28½ in.

LaFrance - Republic presents two new models, a 1-tonner known as Model A1 and listing at \$990, and a heavier model designated as Model F2, having a straight rating of 12,000 to 13,000 lb.

A new Speed Wagon model, known as the Super-Tonner, and a new two-speed rear axle unit are being offered by Reo.

Sterling has two new heavy duty four-wheel drive trucks.

Relay

***Announces A New
Achievement in***

6 Wheelers


**—double starting traction
without double mechanism**

**plus Relay *Horizontal* Cushioning
on *both* rear axles and brakes on
all six wheels.**

These 66 Story of the

1 Not only reduced vertical shocks as with other six-wheelers, but reduced horizontal shocks on both rear axles.

2 Riding quality beyond the possibility of any other six-wheeler.



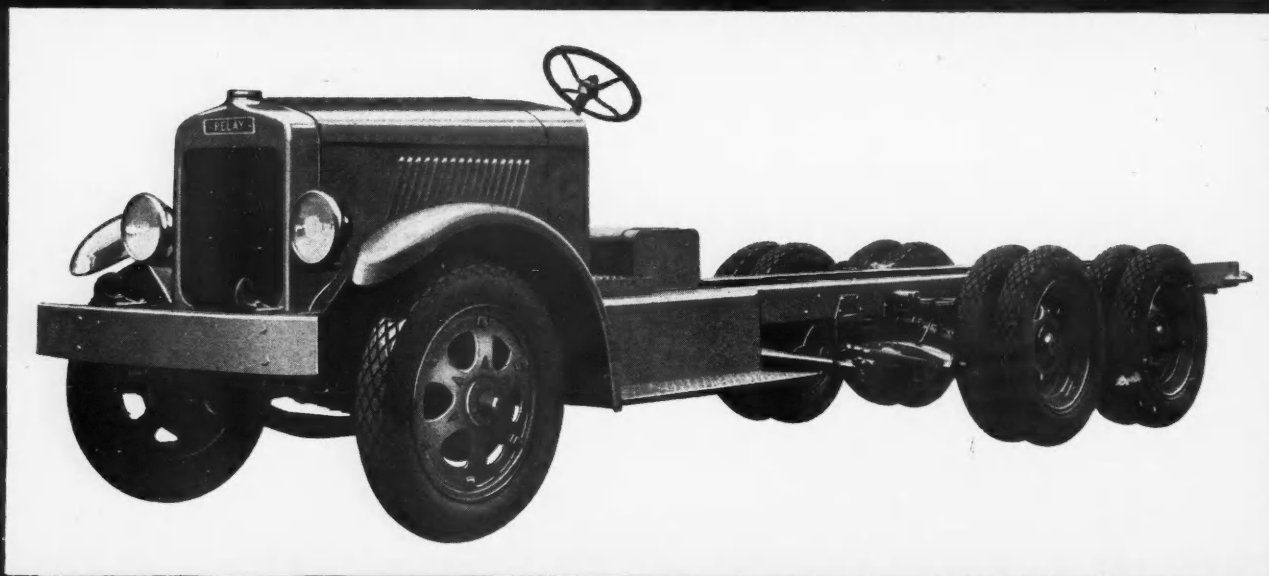
Words Tell The Relay 6 Wheeler

3 Greatly increased tire life as compared with any other six-wheeler due to the Relay action.

4 —Double starting traction where traction is needed—again due to Relay.

5 All this without the complexity of dual-drive rear axles.

The *traction* of the dual driven Six-Wheeler with the *simplicity* of the trailer axle—possible only with Relay.



TEST it for yourself and...

Compare traction

Compare braking

Compare tire wear

Compare carrying capacity per pound of chassis.

Compare riding quality

Compare acceleration

Ask to see the Relay 6-Wheeler, it brings in a new era of simple, economical 6-wheel construction.

RELAY MOTORS CORPORATION, Lima, Ohio

COMMERCIAL CAR JOURNAL

AND OPERATION & MAINTENANCE

TABLE OF TRUCK SPECIFICATIONS

Corrected Each Month From Data
Supplied Direct by Manufacturers

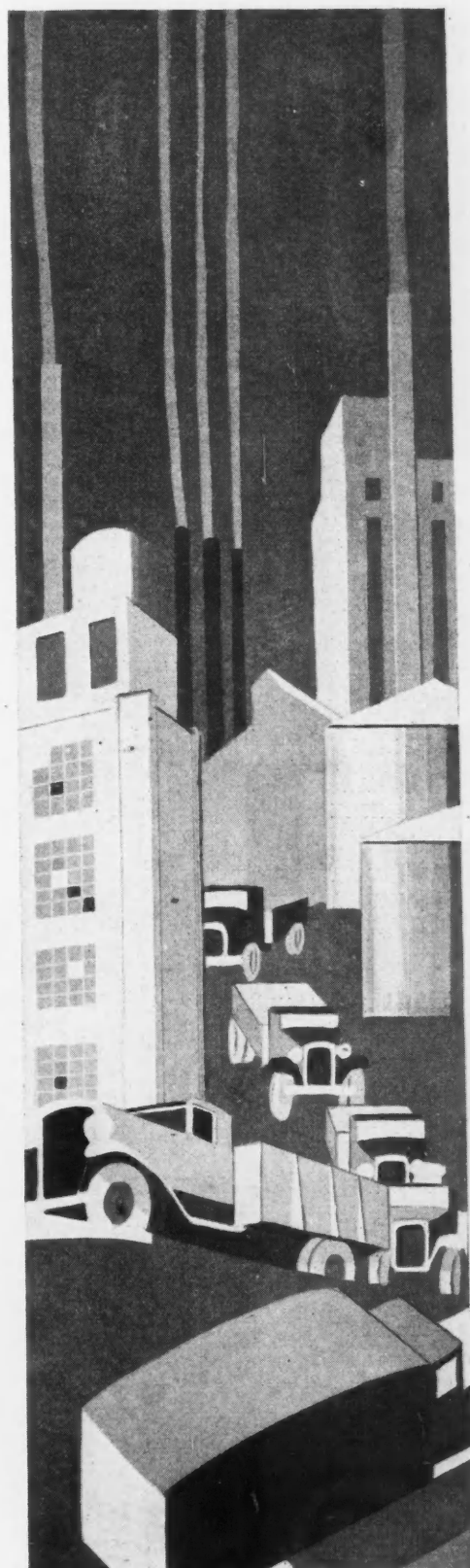
(KEY TO ABBREVIATIONS ON PAGES 96 AND 97)

ON pages following the COMMERCIAL CAR JOURNAL presents for the first time its new Specifications Table.

The new set-up represents a drastic revision of the old. The result, as a study will reveal, is a more comprehensive table that is easier to read and easier to use. The old comprised 32 items of information; the new goes that more than 20 items better. The additions are all items of major importance and those who use the table will probably wonder how they ever got along without them.

Readers are always interested in reasons and they may be curious for one in the present instance. It is briefly told: the reason for the change was merely the extension to another department of this publication's policy to give every subject as thorough coverage as possible.

The extremely arduous task of revision was not accomplished without expert assistance. And it is with a deep bow of gratitude that we extend thanks to those truck dealers, branch managers, sales managers and salesmen who helped us arrange a table that would be most helpful, and also to the men at the factories, whose cooperation in supplying specifications data made success possible.



Line Number	Make, Model and Capacity	General				Tire Size		Make and Model	Engine										Fuel System	Electrical System	Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front		Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1000 Pounds																											
1	Dodge Bros. Mer. Exp.	545	109	109	3850	1900	B 4.75/20	B 4.75/20	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	N-E	1	
2	Gen. Motors. T11-1001	625	109	109	3800	1885	B 5.00/19	B 5.00/19	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	58-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Car	V	D-R	N-E	2	
3	Reo. Jr. 15	785	115	115	4150	2150	B 5.50/18	B 5.00/19	Con 16E	6-3 1/2 x 4	199.0	25.3	57-2800	L	C	C	2 1/2	6 1/2	4	PC	No	Mar	M	D-R	D-R	3	
4	Rugby	614			4150		B 5.00/19	B 5.00/19	Con 22-A	6-3 1/2 x 4	221.0		68-3200	L	C	C	2 1/2	9	4	PC	No	Mar	M	D-R	D-R	4	
5	Studebaker	20			4950				Own	6-3 1/2 x 4 1/2										PC	No	Str	V	A-L	A-L	5	
1500 Pounds																											
6	Dodge Brothers	695	124	124	5060	2260	B 5.50/20	B 5.50/20	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	6	
7	Dodge Brothers	745	124	124	5060	2380	P 30x5	P 30x5	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	7	
8	Dodge Brothers	795	124	124	4960	2360	B 5.50/20	B 5.50/20	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	3	PC	No	Car	V	D-R	D-R	8	
9	Dodge Brothers	845	124	124	4960	2480	P 30x5	P 30x5	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	9	
10	General Motors. 1501	695	130	141	5400	2625	B 5.50/20	B 5.50/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	58-3000	L	C	C	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	10	
11	General Motors. 1701	735	130	141	5400	2650	B 6.50/20	B 6.50/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	58-3000	L	C	C	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	11	
12	Int. Harv. tr. Spec. Del.	1170	121		5188	2200	B 5.25/20	B 5.25/20	Wau XA	4-3 1/2 x 4 1/2	173.0	19.6	35-2700	L	G	C	2 1/2	6 1/2	3	PC	No	Zen	V	D-R	D-R	12	
13	Kiebler	1170	121		4900	2400	B 5.50/20	B 5.50/20	Con	6-2 1/2 x 4 1/2	185.4	19.8	45-2800	L	C	C	2 1/2	5 1/2	4	PC	No	Str	V	A-L	A-L	13	
14	Rugby	614			4900	1760	B 5.00/19	B 5.00/19	Con	6-2 1/2 x 4 1/2	185.4	19.8	45-2800	L	C	C	2 1/2	5 1/2	4	PC	No	Til	V	A-L	A-L	14	
15	Studebaker	845	115		4950	2300	B 6.00/19	B 6.00/19	Own	6-3 1/2 x 4 1/2	221.4	27.3								PC	No	Str	V	A-L	A-L	15	
1 Ton																											
16	Atterbury	A-6	132	45	6260	3915	P 30x5	P 30x5	Lyc WRC	6-2 1/2 x 4 1/2	185.0	18.2	60-3000	L	G	C	2 1/2	7	4	PC	No	Zen	G	A-L	A-L	16	
17	Brockway	S-11	1600	142	6500	3435	P 30x5	P 32x6	Con 27B	6-3 1/2 x 4 1/2	248.2	27.3	66-3200	L	G	C	2 1/2	10 1/2	4	PC	No	Zen	V	A-L	A-L	17	
18	Commerce	S-11	1600	142	6500	3435	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	248.2	27.3	66-3200	L	G	C	2 1/2	10 1/2	4	PC	No	Zen	V	A-L	A-L	18	
19	Diamond T.	200	785	128	6200	3050	P 30x5	P 30x5	Bud H199	4-3 1/2 x 4 1/2	198.8	22.5	57-3000	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	M	A-L	A-L	19	
20	Diamond T.	215	885	135	6350	3150	P 30x5	P 30x5	Bud J214	4-3 1/2 x 4 1/2	214.7	22.5	61-3000	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	M	A-L	A-L	20	
21	Dodge Brothers	795	133	133	6000	2590	B 6.00/20	P 32x6	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Ha	Car	V	D-R	D-R	21
22	Dodge Brothers	810	133	133	6000	2470	P 34x5	P 30x5	Own	4-3 1/2 x 4 1/2	175.4	21.0	45-2800	L	G	C	2 1/2	6 1/2	3	PC	No	Ha	Car	V	D-R	D-R	22
23	Dodge Brothers	895	133	133	6100	2690	B 6.00/20	P 32x6	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	PC	No	Ha	Car	V	D-R	D-R	23
24	Dodge Brothers	910	133	133	6100	2570	P 30x5	P 30x5	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	PC	No	Ha	Car	V	D-R	D-R	24
25	Dodge Brothers	1095	140	140	6100	2955	P 30x5	P 30x5	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	PC	No	Ste	V	N-E	N-E	25	
26	Dodge Brothers	1110	140	140	6100	2985	P 33x5	P 33x5	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	PC	No	Ste	V	N-E	N-E	26	
27	Dodge Brothers	1140	140	140	6100	3000	P 32x6	P 32x6	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	PC	No	Ste	V	N-E	N-E	27	
28	Federal	4FW	980	127	7000	2975	P 30x5	P 30x5	Wau XA	4-3 1/2 x 4 1/2	173.0	19.6	40-2200	L	G	C	2 1/2	6 1/2	3	PC	No	Zen	V	D-R	D-R	28	
29	Federal	E6	1090	132	7000	3120	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4 1/2	215.0	27.3	60-2600	L	G	C	2 1/2	9 1/2	4	PC	No	Zen	V	D-R	D-R	29	
30	Fisher	Jr. Exp.	1090	140	6400	3250	P 30x5	P 30x5	Con 31L	6-3 1/2 x 4 1/2	185.0	19.8	44-2800	L	G	C	2 1/2	5 1/2	4	PC	No	Zen	V	A-L	A-L	30	
31	Garford	S-11	1600	142	6200	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	52-2200	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	V	A-L	A-L	31	
32	General Motors. 1703	745	130	141	6000	2670	B 7.00/20	B 7.00/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	58-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	32	
33	General Motors. 2201	895	130	152	6300	2850	B 5.50/10	P 32x6	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	58-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	33	
34	General Motors. 2501	1235	130	152	6800	3375	B 6.00/20	B 7.50/20	Bulek	6-3 1/2 x 3 1/2	257.5	28.3	76-2500	L	G	C	2 1/2	8 1/2	4	PC	No	Ha	Mar	M	D-R	D-R	34
35	Gramm-Bernstein	10	129	146	6500	3020	P 30x5	P 30x5	Lyc CT	4-3 1/2 x 5	220.9	22.5	38-2150	L	G	C	2 1/2	9 1/2	4	PC	No	Zen	V	A-L	A-L	35	
36	Hahn	7H	124		6500	3100	P 30x5	P 30x5	Con 29L	4-3 1/2 x 4 1/2	185.0	19.8	45-2800	L	G	C	2 1/2	5 1/2	4	PC	No	Zen	V	A-L	A-L	36	
37	Indiana	200	137	149	6500	3435	P 30x5	P 32x6	Wis F	4-3 1/2 x 4 1/2	211.9	25.3	47-2200	H	G	C	2 1/2	8 1/2	4	PC	No	Zen	V	A-L	A-L	37	
38	Indiana	64	137		6500	3435	P 30x5	P 30x5	Con 27B	6-3 1/2 x 4 1/2	248.2	27.3	66-3200	L	G	C	2 1/2	10 1/2	4	PC	No	Str	V	A-L	A-L	38	
39	Int. Harv. 6 Sp. Spec.	124	124	6213	7000	2430	P 30x5	P 30x5	Wau XA	4-3 1/2 x 4 1/2	173.0	19.6	35-2700	L	G	C	2 1/2	6 1/2	3	PC	No	Zen	V	D-R	D-R	39	
40	Kenworth	70	1375	140	7000	3700	P 30x5	P 30x5	Con 18E	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	V	A-L	A-L	40	
41	Kissel	Exp.	1450	140	6800	3780	P 34x5	P 34x5	Own	4-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	V	A-L	A-L	41	
42	Kiebler	Exp.	1450	140	6800	3780	P 34x5	P 34x5	Own	4-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	V	A-L	A-L	42	
43	LaFrance-Republic-A	1	990	132	6000	3000	B 5.50/20	P 32x6	Lyc WRG	6-2 1/2 x 4 1/2	185.0	19.8	50-3000	L	G	C	2 1/2	7	4	PC	No	Zen	V	A-L	A-L	43	
44	Relay	S-11	1600	142	6200	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	52-2200	L	G	C	2 1/2	7 1/2	5	FP	No	Zen	V	A-L	A-L	44	
45	Reo	DA	995	127	5950	2755	P 30x5	P 30x5	Con 16E	6-3 1/2 x 4 1/2	214.7	27.3	60-2800	L	C	A	2 1/2	10	7	PC	No	Sch	V	D-R	D-R	45	
46	Reo	DC	1075	138	5950	2850	P 30x5	P 30x5	Con 16E	6-3 1/2 x 4 1 x																	

Line Number	Radiator Make	Clutch	Gear Set			Universals Make and No.	Rear Axle			Front Axle			Brakes		Steering Gear Make	Frame		Body Mounting Data		Springs			Line Number	
			Type and Make	Make and Model	Location		Make and Model	Final Drive and Type	Drive and Torque	Reduc. in High	Reduc. in Low	Make and Model	Service	Area Service Brakes		Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type	
1	McC	P.Roc	P.B&B	W-G	U	U-P	Ownt Pontiac	S ₁ /2	H 4.7	14.3	Ownt Pontiac	L4IH	121 CX	Gem	5x1 3/4 x 3/4	C	43 3/4	35 1/2 x 1 3/4	53 1/2 x 1 3/4	35 1/2 x 1 3/4	53 1/2 x 1 3/4	N	1	
2	Lon	P.Own	P.B&B	W-G	U	Spl	Col 36020	S ₁ /2	H 4.42	14.7	Col 36020	L4IH	200 TX	Ros	5x1 3/4 x 3/4	C	44	36x2 1/4	54x2 1/4	36x2 1/4	54x2 1/4	N	2	
3	Har	P.B&B	P.B&B	W-G	U	Spl	Sal Adams	S ₁ /2	H 4.45	14.0	Sal Adams	S4IM	178 4I	War	5 3/4 x 2 1/4	C	52 3/4	26	36x1 3/4	55x2 1/4	36x2 1/4	55x2 1/4	N	3
4	McC	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 4.4	14.6	Ownt	B4IM	230 4I	Ros	6 1/4 x 2	C	52 3/4	26	36x2 1/4	55x2 1/4	36x2 1/4	55x2 1/4	N	4
5																							5	
6	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.63	21.2	Ownt	L4IH	189 TX	Han	6x2 3/4 x 3/4	C	66 1/4	31	37 1/2	39x2	48x2 1/4	39x2	N	6
7	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.63	21.2	Ownt	L4IH	189 TX	Han	6x2 3/4 x 3/4	C	66 1/4	31	37 1/2	39x2	48x2 1/4	39x2	N	7
8	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.11	19.2	Ownt	L4IH	189 TX	Han	6x2 3/4 x 3/4	C	66 1/4	31	37 1/2	39x2	48x2 1/4	39x2	N	8
9	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.11	19.2	Ownt	L4IH	189 TX	Han	6x2 3/4 x 3/4	C	66 1/4	31	37 1/2	39x2	48x2 1/4	39x2	N	9
10	Lon	P.Own	P.Own	W-G	U	Spl	Tim 51500	S ₁ /2	H 4.83	16.0	Tim 11709	B4IM	308 4I	Jac	6x2 3/4 x 3/4	C	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	10
11	Lon	P.Own	P.Own	W-G	U	Spl	Tim 51505	S ₁ /2	H 4.83	16.0	Tim 11709	B4IM	308 4I	Jac	6x2 3/4 x 3/4	C	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	11
12	Lon	P.Own	P.Own	W-G	U	Spl	Eat 502	S ₁ /2	H 4.45	15.1	Eat 200F	B4IM	256 2I	Ros	4 1/2 x 1 3/4 x 3/4	C	86 1/2	50	32	40x2	53x2	40x2	N	12
13	Fed	P.B&B	P.B&B	W-G	U	Spl	Tim 52604	S ₁ /2	H 4.9	14.8	Tim 11703 H	L4IH	440 TX	Ros	6 1/2 x 2 1/4	T	84	86	38x2	52x2	38x2	52x2	N	13
14	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 4.45	14.8	Ownt	L4IH	440 TX	Ros	6 1/2 x 2 1/4	T	84	86	38x2	52x2	38x2	52x2	N	14
15	Lon	P.Own	P.Own	W-G	U	Spl	Ownt	S ₁ /2	H 4.7	14.3	Ownt	L4IH	440 TX	Ros	6 1/2 x 2 1/4	T	84	86	38x2	52x2	38x2	52x2	N	15
16	Fed	D.B-L	P.B&B	B-L 20A	U	Spl	Tim 52000 H	SF	H 6.83	43.5	Tim 11703 H	L4IH	136 TX	Gem	5 1/4 x 2 1/4 x 3/4	C	98 1/2	55	34	38x2 1/4	50x2 1/4	38x2 1/4	N	16
17	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	17
18	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	18
19	G&O	P.B&B	P.B&B	W-G	U	Spl 2	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	19
20	G&O	P.B&B	P.B&B	W-G	U	Spl 2	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	20
21	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	21
22	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	22
23	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	23
24	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	24
25	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	25
26	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	26
27	Fed	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.6	36.1	Ownt	L4IH	206 TX	Han	6x2 3/4 x 3/4	C	85 1/2	50	37 1/2	39x2	48x2 1/4	39x2	N	27
28	Lon	P.B&B	P.B&B	W-G T9	U	Spl	Col 36020	SF	H 5.6	36.1	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	28
29	Lon	P.B&B	P.B&B	W-G T9	U	Spl	Col 36020	SF	H 5.6	36.1	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	29
30	Lon	P.B&B	P.B&B	W-G T9	U	Spl	Col 36020	SF	H 5.6	36.1	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	30
31	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Tim 52000 H	SF	H 5.6	36.1	Tim 11703 H	L4IH	380 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	108	73 1/2	32	40x2	54x2 1/4	40x2	N	31
32	Lon	P.Own	P.Own	W-G	U	Spl	Col 54028	SF	H 4.83	16.0	Tim 11709	B4IM	308 4I	Jac	6x2 3/4 x 3/4	C	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	32
33	Lon	P.Own	P.Own	W-G	U	Spl	Tim 51505	S ₁ /2	H 6.2	34.4	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	33
34	Lon	P.Own	P.Own	W-G	U	Spl	Tim 5261	S ₁ /2	H 5.83	29.6	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	34
35	Lon	P.Own	P.Own	W-G	U	Spl	Sal A	S ₁ /2	H 5.83	29.6	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	35
36	G&O	P.B&B	P.B&B	W-G	U	Spl	Tim 52000 H	SF	H 5.83	29.6	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	36
37	Lon	P.B&B	P.B&B	B-L 20A	U	Spl	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	37
38	Lon	P.B&B	P.B&B	B-L 20A	U	Spl	Col 36020	SF	H 5.12	21.3	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	38
39	Lon	P.B&B	P.B&B	B-L 20A	U	Spl	Eat 1124	S ₁ /2	H 5.29	52.6	Eat 430F	L4IH	292 2I	Ros	6x2 3/4 x 3/4	T	86 1/2	50	32	40x2	46x2 1/4	40x2	N	39
40	McC	D.B-L	P.B&B	B-L 20	U	Spl	Col 36020	SF	H 5.4	34.6	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	40
41	McC	D.B-L	P.B&B	B-L 20	U	Spl	Col 36020	SF	H 5.4	34.6	Col 3221	C4IM	190 TX	Ros	5 1/4 x 2 1/4 x 3/4	C	96	56	34	37x2 1/4	52x2 1/4	37x2 1/4	N	41
42	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Tim 52000 H	SF	H 5.83	29.6	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	42
43	G&O	P.B&B	P.B&B	B-L 20	U	Spl	Tim 51000 H	SF	H 5.83	29.6	Tim 11710	B4IM	377 TX	Jac	6x2 3/4 x 3/4	P	87	48	34	38x2	50 1/2 x 2 1/4	38x2	N	43
44	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Ownt 20B	SF	H 5.14	25.7	Col 5530	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	103 1/2	63	34	38x2	50 1/2 x 2 1/4	38x2	N	44
45	Har	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	45
46	Har	P.B&B	P.B&B	W-G	U	Spl	Ownt	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	46
47	McC	P.B&B	P.B&B	B-L 214	U	Spl	Sal	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	47
48	Fed	D.B-L	P.B&B	B-L 20	U	Spl	Sal	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	48
49	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Tim 52000	SF	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	49
50	Lon	P.B-L	P.B&B	B-L 20	U	Spl	Col 54028	SF	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	50
51	Fed	P.B&B	P.B&B	B-L 20	U	Spl	Sal	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	51
52	Fed	P.B&B	P.B&B	B-L 20	U	Spl	Sal	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	52
53	McC	P.B&B	P.B&B	B-L 214	U	Spl	Ownt	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	50x2 1/4	38x2	N	53
54	McC	P.B&B	P.B&B	B-L 214	U	Spl	Ownt	S ₁ /2	H 5.21	18.5	Ownt	L4IH	289 TX	Ros	6 1/4 x 2 1/4 x 3/4	C	86 1/2	46	40	38x2	5			

Line Number	Make, Model and Capacity	General		Tire Size		Engine										Fuel System		Electrical System		Line Number							
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings		Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1½ Ton—Cont'd																											
1	Fisher...Fast Freight	146	160		8200	3500	P 30x5	P 32x6	Con 84	4-4½x4½	255.3	28.9	50-2200	L	G	C	2½	5½	3	FP	No	Zen	V	A-L	A-L	1	
2	F.W.D....H 4	120	156		9300	5300	P 32x6	P32x6	Wis SU	4-4½	251.0	25.6	50-2000	H	G	C	2	8	3	PC	No	Zen	V	A-L	A-L	2	
3	F.W.D....H	3300	121	156	9300	5300	P 34x7	P34x7	Wis SU	4-4½	251.0	25.6	50-2000	H	G	C	2	8	3	PC	No	Zen	V	A-L	A-L	3	
4	Garford....40	2990	168			4700	P 34x5	DP34x5	Bud DS6	6-3½x5	309.6	31.5	56-2000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	4	
5	Garford....S 11	1900	162			4300	P 30x5	DP30x5	Bud HS 6	6-3½x4½	241.6	27.3	52-2200	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	5	
6	General Motors...3206	1555	141	164	9000	4450	B 6.00/20	B8.25/20	Buick	6-3½x4½	257.5	28.3	76-2500	I	G	C	2	8	4	PC	No	Mar	M	D-R	D-R	6	
7	General Motors...2212	960	130	152	7300	2895	B 5.50/20	DB5.50/20	Pontiac	6-3½x4½	200.3	26.3	58-3000	L	G	C	2	8	4	PC	No	Mar	M	D-R	D-R	7	
8	General Motors...2508	1265	130	152	7900	3355	B 6.00/20	DB6.00/20	Buick	6-3½x4½	257.5	28.3	76-2500	I	G	C	2	8	4	PC	No	Mar	M	D-R	D-R	8	
9	Gotfredson....RB-36	Op			4000	3700	P 32x6	P 32x6	Own	6-3½x4½	214.7	27.3	61-3000	L	G	C	2	8	4	PC	No	Joh	M	D-R	D-R	9	
10	Gramm....B 1495	140	174		8400	3800	P 30x5	DP30x5	Lyc	6-3½x4½	224.0	25.3	56-2700	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	10	
11	Gramm-Bernstein...115		146	160		3650	P 30x5	P 30x5	Lyc C4W	4-4½	251.0	25.6	34-2000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	11	
12	Hahn....17 H		142		9000	3750	P 30x5	P 30x5	Con 18E	6-3½x4½	214.7	27.3	66-3000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	12	
13	Indiana....111		129	165	9000	3600	P 30x5	P 32x6	Her OX	4-4½	251.3	25.6	46-3000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	13	
14	Indiana....89		149	168	9000	3600	P 30x5	P 32x6	Con 27B	6-3½x4½	248.2	27.3	66-3200	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	14	
15	Indiana....300		149	168		3650	P 30x5	P 32x6	Wis F	6-3½x4½	211.5	25.3	47-2200	H	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	15	
16	Int. Harv'tr....SL-34		140	160		3595	P 30x5	P 30x5	Lyc CT	4-3½x5	221.0	22.5	43-2350	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	16	
17	Int. Harv'tr....SF-34		140	160	8444	3520	P 30x5	P 32x6	Lyc CT	4-3½x5	221.0	22.5	43-2350	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	17	
18	Int. Harv'tr....SL-36		140	160		3645	P 30x5	P 30x5	Lyc 4SL	6-3½x4½	224.0	25.3	61-2800	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	18	
19	Int. Harv'tr....SF-36		140	160	8504	3570	P 30x5	P 32x6	Lyc 4SL	6-3½x4½	224.0	25.3	61-2800	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	19	
20	Kenworth....100	1995	164	182	10000	4200	P 30x5	DP30x5	Bud HS-6	6-3½x4½	241.6	27.3	57-2500	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	20	
21	Kissel....152		1200		9200	4100	S 36x4	S 36x6	Own 4000	4-3½x5	259.4	24.1	32-1200	L	G	C	2	8	3	SP	Fe	Str	V	Elis	Non	21	
22	Kleiber....1925	158	158		8300	4200	P 32x6	P 32x6	Con	6-3½x4½	248.2	27.3	66-3200	L	G	C	2	8	4	PC	No	Str	V	D-R	D-R	22	
23	LaFrance-Republic-C-1		144		7000	3300	B 6.00/20	P 32x6	Lyc 4SL	6-3½x4½	224.0	25.3	61-2750	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	23	
24	LaF.-Republic....76-6		150			3500	P 30x5	P 32x6	Lyc 4SL	6-3½x4½	224.0	25.3	61-2750	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	24	
25	Maccar....36200		164	182	9000	4500	P 32x6	DP32x6	Bud HS	6-3½x4½	241.6	27.3	57-2100	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	25	
26	Mack....B13	3500	165			6450	P 32x6	DP32x6	Own AB	4-4½x5	283.5	28.9								PS	On	Str	G	Bos R	Non	26	
27	Mack....AB	3100	164	164		5500	S 36x4	DS36x4	Own AB	4-4½x5	283.5	28.9								PS	On	Str	G	Bos R	Non	27	
28	Mack....AB	3550	164			6050	S 36x4	DS36x4	Own AB	4-4½x5	283.5	28.9								PS	On	Str	G	Bos R	Non	28	
29	Relay....40	2990	168			5300	P 34x5	DP34x5	Bud DS 6	6-3½x5	309.6	31.5	56-2000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	29	
30	Relay....S 11	1900	162			4500	P 30x5	DP30x5	Bud HS 6	6-3½x4½	241.6	27.3	52-2200	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	30	
31	Reo....FA-137		1295	137	7800	3525	P 32x6	P 32x6	Own	6-3½x5	268.3	27.3	67-2800	L	G	C	2	8	4	PC	No	Sch	V	D-R	D-R	31	
32	Reo....F13	1395	152		7800	3700	P 32x6	P 32x6	Own	6-3½x5	268.3	27.3	67-2800	L	G	C	2	8	4	PC	No	Sch	V	D-R	D-R	32	
33	Reo....FF	1395	156		7800	3750	P 32x6	P 32x6	Own	6-3½x5	268.3	27.3	67-2800	L	G	C	2	8	4	PC	No	Sch	V	D-R	D-R	33	
34	Sanford....A		130	140		2900	P 32x6	P 32x6	Con 31 L	6-2½x4½	185.0	19.8	45-2800	L	G	C	2	8	4	PC	No	Str	V	D-R	D-R	34	
35	Schacht....15	1765	160	174	8800	4100	P 32x6	P 32x6	Con	6-3½x4½	248.2	27.3	65-2600	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	35	
36	Selden....Pacemaker		142	142		3750	P 30x5	P 30x5	Con 18E	6-3½x4½	214.7	27.3	61-3000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	36	
37	Service....40		160			4700	P 34x5	DP34x5	Bud DS 6	6-3½x5	309.6	31.5	56-2000	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	37	
38	Service....S1	1900	162			4300	P 30x5	DP30x5	Bud HS 6	6-3½x4½	241.6	27.3	52-2200	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	38	
39	Sterling....DB9-64-16C		139	168	9000	3625	P 34x7	P 34x7	Con 16C	6-3½x4½	248.2	27.3	63-2500	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	39	
40	Stewart....28X	1495	136	176	8843	3958	P 30x5	DP30x5	Lyc	6-3½x4½	224.0	25.3	61-2600	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	40	
41	White....20A	2125	145	168	10500	4412	P 34x5	DP34x5	Own GKA	4-3½x5	226.4	22.5	31-1600	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	41	
42	White....61	2450	148	170	10500	4612	P 30x5	DP30x5	Own 2A	6-3½x4½	260.0	29.4	50-1800	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	42	
43	Willis-Knight....T-103	825	131	131		2808	P 30x5	P 30x5	Own	6-2½x4½	177.9	20.7	53-3000	X	C	S	2	12	7	PC	No	Til	V	A-L	A-L	43	
44	Willis-Knight....15A		134			5115	P 32x6	P 32x6	Own	6-3½x4½	241.6	27.3	61-2600	L	G	C	2	8	4	PC	No	Zen	V	A-L	A-L	44	
45	Willis-Knight....16	1595	151	174		3400	P 30x5	P 30x5	Own	6-3½x4½	177.9	20.7	53-3000	X	C	S	2	12	7	PC	No	Til	V	A-L	A-L	45	
46	Willis Six....C-101	695	131			2675	P 30x5	P 30x5	Own	6-3½x4½	193.0	25.3	65-3400	L	G	C	2	8	4	PC	No	Til	V	A-L	A-L	46	
1¾ Ton																											
47	General Motors...2509	1280	130	152	8500	3425	P 30x5	DP30x5	Buick	6-3½x4½	257.5	28.3	76-2500	I	G	C	2	8	4	PC	Ha	Mar	M	D-R	D-R	47	
48	General Motors...2502	1295	130	152	8500	3440	B 6.50/20	P 34x7	Buick	6-3½x4½	257.5	28.3	76-2500	I	G	C	2	8	4	PC	Ha	Mar	M	D-R	D-R	48	
49	General Motors...2213																										

Line Number	Radiator Make	Clutch	Gearset	No. of Forward Speeds	Aux. Locat. and Speeds	Universals Make and No.	Rear Axle			Front Axle			Brakes			Frame	Body Mounting			Springs			Line Number			
							Make and Model	Location	Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Hand		Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame		Front	Rear	Auxiliary Type
1	Lon	D.B-L	B-L 35	U	4	No	Blo 3	Col 5413	BF	R 5.86	23.4	Col 5500S	C4IH	475	TX	Ros	5x2 1/2 x 1 1/2	C	120	79	32	42x2 1/2	54x3	1/2	2	
2	Per	D.Det	Cot A	U	4	....	Blo 4	Own	BF	H 7.33	38.0	Own	O4IM	252	21	Ros	5 1/2 x 2 1/2 x 1 1/2	C	112	81	36	42 1/2 x 2 1/2	52 1/2 x 2 1/2	N	3
3	Lon	D.B-L	B-L 35	U	4	....	Blo 4	Tim 63702	WF	6.5	34.8	Tim 14704 H	....	....	....	Han	5 1/2 x 2 1/2 x 1 1/2	C	144	90	....	....	....	N	4
4	Lon	P.B-L	B-L 20	U	4	....	Blo 4	Tim 54000	SF	5.8	29.2	Col 5530	....	....	....	Han	103	83	....	....	....	....	....	N	5
5	Lon	D.	Mun	U	4	No	Spl	Eat 1617	SF	H 5.63	28.6	Eat 433-F	B4IM	402	TX	Jac	6 1/2 x 3 x 1 1/2	C	107	59	34	38x2 1/2	50x3	1/2	6	
6	Lon	P.Own	Mun	U	4	No	Spl	Tim 5261	SF	H 6.2	34.5	Tim 11710	B4IM	377	TX	Jac	6 1/2 x 3 x 1 1/2	C	87	47	34	38x2	50 1/2 x 2 1/2	N	7	
7	Lon	D.	Mun	U	4	No	Spl	Tim 5261	SF	H 6.2	34.5	Tim 11710	B4IM	377	TX	Jac	6 1/2 x 3 x 1 1/2	C	87	47	34	38x2	50 1/2 x 2 1/2	N	8	
8	Lon	D.B-L	B-L 20-4	U	4	No	Spl	Tim 52000 H	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	94	60	34	38x2 1/2	50x2 1/2	1/2	9	
9	Lon	D.B-L	B-L 20-4	U	4	No	Spl	Tim 54000	BF	H 4.85	32.2	Col 4003	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	94	60	34	38x2 1/2	50x2 1/2	1/2	10	
10	Per	D.Jon	Cov A-4J	U	4	No	Blo 4	Tim 54000	BF	H 4.85	32.2	Col 4003	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	94	60	34	38x2 1/2	50x2 1/2	1/2	11	
11	Own	D.Ful	Ful S U 12	U	3	No	Spl	Tim 54000	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	127	73	34	38x2 1/2	50x2 1/2	1/2	12	
12	Chi	D.B-L	B-L 20	U	4	No	Blo 4	Tim 52000 H	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	127	73	34	38x2 1/2	50x2 1/2	1/2	13	
13	McC	P.B&B	B-L 31	U	4	No	Spl	Tim 54000	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	127	73	34	38x2 1/2	50x2 1/2	1/2	14	
14	Lon	P.B&B	B-L 20-4	U	4	No	Spl	Tim 54000	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	127	73	34	38x2 1/2	50x2 1/2	1/2	15	
15	Lon	P.B&B	B-L 20-4	U	4	No	Spl	Tim 54000	BF	H 6.38	25.5	Shu 5405	L4IH	278	TX	Ros	6 1/2 x 3 x 1 1/2	C	127	73	34	38x2 1/2	50x2 1/2	1/2	16	
16	Lon	P.Own	Own	U	3	No	M.M.5	Eat 1502	SF	H 5.66	22.6	Eat 430 F	B4IM	346	21	CAS	6 1/2 x 3 x 1 1/2	T	104	61	34	32x2 1/2	52x3	1/2	17	
17	Lon	P.Own	Own	U	3	No	M.M.5	Eat 1502	SF	H 5.66	22.6	Eat 430 F	B4IM	346	21	CAS	6 1/2 x 3 x 1 1/2	T	104	61	34	32x2 1/2	52x3	1/2	18	
18	Lon	P.Own	Own	U	3	No	M.M.5	Eat 1502	SF	H 5.66	22.6	Eat 430 F	B4IM	346	21	CAS	6 1/2 x 3 x 1 1/2	T	104	61	34	32x2 1/2	52x3	1/2	19	
19	Lon	P.Own	Own	U	3	No	M.M.5	Eat 1502	SF	H 5.66	22.6	Eat 430 F	B4IM	346	21	CAS	6 1/2 x 3 x 1 1/2	T	104	61	34	32x2 1/2	52x3	1/2	20	
20	Per	D.B-L	B-L 35-4	U	4	No	Spl	Tim 54000 H	SF	H 5.83	31.2	Cla F 304	L4IH	453	TDI	Ros	5 1/2 x 3 x 1 1/2	T	126	82	34	39x2 1/2	52x3	1/2	21	
21	McC	D.W-G	W-G T38L	U	3	No	Spl	Tim 54000 H	SF	H 7.80	28.5	Tim 1526	T2IM	21	....	Ros	5 1/2 x 3 x 1 1/2	T	126	82	34	39x2 1/2	52x3	1/2	22
22	Own	D.B-L	B-L 35	U	4	No	Spl	Tim 54000 H	BF	H 6.42	....	Tim 12703 H	L4IH	448	TX	Ros	5 1/2 x 3 x 1 1/2	C	126	76	34	38x2	52x2 1/2	1/2	23
23	G&O	D.B-L	B-L	U	4	No	Spl	Tim 52000 H	BF	H 5.83	27.2	Cla	L4IH	....	....	Ros	6x2 1/2 x 1 1/2	C	111	62	32	38x2	52 1/2 x 2 1/2	N	24
24	Per	D.B-L	B-L	U	3	....	Col	Tim 54000	BF	....	....	Col	....	....	....	Ros	....	C	108	63	....	....	....	N	25
25	Per	D.B-L	B-L 20	U	4	No	Cle 3	Tim 54000	BF	H 5.83	29.1	Tim 14703 H	L4IH	....	....	Ros	6x3x1 1/2	C	117	74	32	42x2 1/2	54x1 1/2	1/2	26
26	Own	D.Own	Own AB	U	4	....	Spl	Own DB	SF	4.91	23.8	Own BB	....	....	....	Own	....	C	132	79	....	....	....	N	27
27	Own	D.Own	Own AB	U	4	....	Spl	Own AB	CD	7.10	34.4	Own AB	....	....	....	Own	....	C	144	91	....	....	....	N	28
28	Own	D.Own	Own AB	U	4	....	Spl	Own AB	RF	7.60	36.8	Own AB	....	....	....	Own	....	C	144	91	....	....	....	N	29
29	Lon	D.B-L	B-L 35	U	4	....	Blo 4	Own 30	RF	6.45	34.5	Tim 14704 H	....	....	....	Han	144	90	....	....	....	....	....	N	30
30	Lon	P.B-L	B-L 20	U	4	....	Blo 4	Own 20	RF	6.00	30.0	Col 5530	....	....	....	Han	133	83	....	....	....	....	....	N	31
31	Own	D.B-L	Own	U	4	No	Pet	Own	SF	H 5.2	34.3	Own	L4IH	289	TX	Han	6 1/2 x 3 x 1 1/2	C	97	52	40	38x2 1/2	50x2 1/2	1/2	32	
32	Own	D.B-L	Own	U	4	No	Pet	Own	SF	H 5.2	34.3	Own	L4IH	289	TX	Han	6 1/2 x 3 x 1 1/2	C	97	52	40	38x2 1/2	50x2 1/2	1/2	33	
33	Own	D.B-L	Own	U	4	No	Pet	Own	SF	H 5.2	34.3	Own	L4IH	289	TX	Han	6 1/2 x 3 x 1 1/2	C	97	52	40	38x2 1/2	50x2 1/2	1/2	34	
34	Fed	D.B-L	B-L 20	U	3	No	Spl	Eat	BF	H 6.37	31.1	Eat	L4IH	289	TX	Ros	6 1/2 x 3 x 1 1/2	C	86	46	34	38x2 1/2	50x2 1/2	1/2	35	
35	Own	D.B-L	B-L	U	4	No	Spl	Tim	BF	H 5.83	31.2	Tim 12703 H	L4IH	452	TX	Ros	6x3x1 1/2	C	....	....	....	....	....	N	36
36	Own	D.B-L	W-G	U	4	....	Blo 4	Tim	BF	5.1	....	Tim	....	....	....	Ros	....	C	110	66	....	....	....	N	37
37	Lon	D.B-L	B-L 35	U	4	....	Blo 4	Tim 63702	WF	6.5	34.8	Tim 14704 H	....	....	....	Han	144	90	....	....	....	....	....	N	38
38	Lon	P.B-L	B-L 20	U	4	....	Blo 4	Tim 54000	SF	5.8	29.2	Col 5530	L4IH	306	TX	Ros	5 1/2 x 3 x 1 1/2	C	113	83	....	....	....	N	39
39	Own	D.B-L	B-L 20	U	4	No	Spl	Tim 54000 H	SF	H 5.2	34.3	Tim 12703 H	L4IH	306	TX	Ros	5 1/2 x 3 x 1 1/2	C	113	83	....	....	....	N	40
40	Own	D.B-L	B-L 20	U	4	No	Spl 3	Cla	SF	H 6.37	47.0	Own	B4IM	....	....	Ros	7 1/2 x 3 x 1 1/2	C	134	63	32	38 1/2 x 2 1/2	50x2 1/2	1/2	41
41	Own	P.Own	Own 20A	U	4	No	Spl	Own 20A	R	R 9.25	32.1	Own 20A	O2IM	384	2X	Own	5 1/2 x 3 x 1 1/2	C	106	69	34	41x2 1/2	48 1/2 x 1 1/2	1/2	42	
42	Own	P.Own	Own 5B	U	4	No	Spl	Own 7C	R	R 9.25	32.1	Own 7D	L4IH	358	TI	Own	6 1/2 x 3 x 1 1/2	C	115	68	34	41x2 1/2	54x3	1/2	43	
43	Own	P.Roc	Ful Wo	U	4	No	M.M.2	Cla 364 B	SF	H 6.37	39.3	Own	BO4IM	269	2X	Own	6x2 1/2 x 1 1/2	P	86	51	37	36x1 1/2	45x2 1/2	1/2	44	
44	Fed	P.B&B	Cov	U	4	No	Blo 2	Eat 1504	SF	H 6.63	44.0	Own	E4IM	....	21	Ros	6x2 1/2 x 1 1/2	P	96	56	34	38x2 1/2	50x2 1/2	1/2	45
45	Fed	P.B&B	Cov	U	4	No	Blo 2	Eat 1504	SF	H 6.63	44.0	Own	E4IM	....	21	Ros	6x2 1/2 x 1 1/2	P	126	73	37	38x2 1/2	50x2 1/2	1/2	46
46	Fed	P.B&B	Ful Wo	U	4	No	M.M.2	Cla B 364	SF	H 6.37	39.3	Own	BO4IM	269	2X	Own	6x2 1/2 x 1 1/2	P	86	51	37	36x1 1/2	45x2 1/2	1/2	47	
47	Lon	D.	Mun	U	4	No	Spl	Tim 5261	SF	H 5.83	29.6	Tim 11710	B4IM	377	TX	Jac	6x2 1/2 x 1 1/2	C	87	48	34	38x2	50 1/2 x 2 1/2	N	48	
48	Lon	P.Own	Mun	U	4	....	Spl	Tim 5261	SF	H 5.83	29.6	Tim 11710	B4IM	377	TX	Jac	6x2 1/2 x 1 1/2	C	87	48	34	38x2	50 1/2 x 2 1/2	N	49
49	Lon	P.Own	Mun	U	4	....	Spl	Tim 5261	SF	H 5.83	29.6	Tim 11710	B4IM	377	TX	Jac	6x2 1/2 x 1 1/2	C	87	48	34	38x2	50 1/2 x 2 1/2	N	50
50	Fed	D.B-L	B-L	U	3	....	Blo	Eat	SF	6.38	26.4	Eat	....	....	....	Ros	....	C	107	66	....	....	....	N	51
51	G&O	P.B&B	Own	A	4	No	Spl	Tim 65000BX	WF	R 5.0	24.0	Tim 14703BX	B4IM	....	TD	Ros	6 1/2 x 2 1/2 x 1 1/2	C	Opt	Opt	32	42x2 1/2	54x3	1/2	51
52	No	D.B-L	B-L 35	U	4	....	Spl	Tim	WF	7.25	38.8	Tim	....	....	....	Ros	....	C	121	72	....	....	....	N	52
53	Lon	D.B-L	B-L 35	U	4	....	Spl	Tim	WF	7.25	38.8	Tim	....	....	....	Ros	....	C	121	72	....	....	....	N	53
54	Fed	D.B-L	B-L	U	4	No	Spl	Tim	BF	H 6.80	34.0	Tim 12703 H	L4IH	....	TX	Gem	5 1/2 x 2 1/2 x 1 1/2	C	120	68	34	38x2 1/2	50x2 1/2	1/2	54
55	Per	P.Own	B-L 35	U	4	No	Spl	Own SD	WF	H 6.33	33.8	Tim 14703	LO4JD	460	2I	Ros	6 1/2 x 3 x 1 1/2	C	115	64	34	40x2 1/2	54x3	1/2	55	
56	G&O	D.B-L	B-L 35	U	4	No	Spl	Tim 64600D	WF	H 6.33	33.8	Tim 14703	W2XMDV	....	....	Ros	6 1/2 x 3 x 1 1/2	C	120	68	34	40x2 1/2	54x3	1/2	56
57	G&O	D.B-L	B-L 35	U	4	No	Spl	Tim 54100 H	RF	H 5.85	31.3	Col 5536	L4IH	386	TX	Ros	7 1/2 x 3 x 1 1/2	T	108	69	34	40x2 1/2	54x2 1/2	1/2	57	
58	G&O	D.B-L	B-L 35	U	4	No	Spl	Wis 4916 L	RF	R 6.6	35.3	Col 5536	L4IHV	386	TX	Ros	7 1/2 x 3 x 1 1/2	T	108	69	34	40x2 1/2	54x2 1/2	1/2	58	
59	Chi	D.B-L</																								

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System	Electrical System	Line Number								
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings		No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
2 Ton—Cont'd																											
1	LaFra-Republic D-1	144	165		9000	3750	P 30x5	DP30x5	Lyc 4SL	6-3 1/4 x 4 1/2	224.0	25.3	61-2750	L	G	C	2 1/2	7 1/2	4	PC	No	Zen	V	A-L	A-L	1	
2	LaFra-Republic F-1	155				4650	P 32x6	DP32x6	Lyc 4SL	6-3 1/4 x 4 1/2	224.0	25.3	61-2750	L	G	C	2 1/2	7 1/2	4	PC	No	Zen	V	A-L	A-L	2	
3	LaFra-Republic 88-6	155				3350	P 30x5	DP30x5	Lyc 4SL	6-3 1/4 x 4 1/2	224.0	25.3	61-2750	L	G	C	2 1/2	7 1/2	4	PC	No	Zen	V	A-L	A-L	3	
4	LaFra-Republic 50	154				4100	P 30x5	DP30x5	Lyc 4SL	6-3 1/4 x 4 1/2	224.0	25.3	61-2750	L	G	C	2 1/2	7 1/2	4	PC	No	Zen	V	A-L	A-L	4	
5	Maccar. 40	126	182		10350	4850	P 32x6	DP32x6	Bud	6-3 1/4 x 4 1/2	241.6	27.3	57-2100	L	G	C	2 1/2	7 1/2	4	PC	No	Zen	V	A-L	A-L	5	
6	Mack 3100	146	164			5500	S 36x4	DS36x4	Own AB	4-4 1/4 x 5	28.9			L	L	L				PS	On	Str	V	G-R-Bo	D-R	6	
7	Mack 3550	164				6050	S 36x4	DS36x4	Own AB	4-4 1/4 x 5	28.9			L	L	L				PS	On	Str	V	G-R-Bo	D-R	7	
8	Moreland RR-7	2025	158		9300	4000	P 32x6	P 32x6	Con 16C	6-3 1/4 x 4 1/2	248.3	27.3	70-1300	L	C	C	2 1/2	10 1/2	7	PC	No	Zen	V	A-L	A-L	8	
9	Omort 200	124	148			4800	P 32x6	DP32x6	Her OX	4-4 1/4 x 5	251.3	25.6	46	L	L	L				PS	On	Str	V	A-L	A-L	9	
10	Pierce-Arrow XA	3500	150	162		6280	S 36x4	DS36x5	Own XA	4-4 1/4 x 5	25.6			L	L	L				FP	No	Str	V	D-R	D-R	10	
11	Pierce-Arrow FA	2450	140	180		3855	S 32x6	S 34x7	Own FA	6-3 1/4 x 5	29.4			L	L	L				FP	No	Str	V	D-R	D-R	11	
12	Relay 40	3240	168	185		5500	P 36x6	DP36x6	Bud DS6	6-3 1/4 x 5	309.6	31.5	56-2000	L	L	L				PC	No	Zen	V	A-L	A-L	12	
13	Relay S11	2030	162			4700	P 32x6	DP32x6	Bud HS6	6-3 1/4 x 5	241.6	27.3	52-2200	L	L	L				PC	No	Zen	V	A-L	A-L	13	
14	Relay 50	3860	161			6800	P 36x6	DP36x6	Bud DW6	6-3 1/4 x 5	331.0	33.7	73-2200	L	L	L				PC	No	Zen	V	A-L	A-L	14	
15	Reo FC	1645	152		9400	4025	P 32x6	DP32x6	Own	6-3 1/4 x 5	268.3	27.3	67-2800	L	C	A	2 1/2	12 1/2	7	PC	No	Sch	V	A-L	A-L	15	
16	Reo FD	1745	158		9400	4075	P 32x6	DP32x6	Own	6-3 1/4 x 5	268.3	27.3	67-2800	L	C	A	2 1/2	12 1/2	7	PC	No	Sch	V	A-L	A-L	16	
17	Reo FH	1545	142		9400	4165	P 32x6	DP32x6	Own	6-3 1/4 x 5	268.3	27.3	67-2800	L	C	A	2 1/2	12 1/2	7	PC	No	Sch	V	A-L	A-L	17	
18	Sanford N	160				4285	P 30x5	DP30x5	Con 16C	6-3 1/4 x 4 1/2	248.3	27.3	66-2900	L	L	L				PC	No	Str	V	D-R	D-R	18	
19	Schacht 20	1850	160	174	9500	4500	P 32x6	DP32x6	Con 16C	6-3 1/4 x 4 1/2	248.3	27.3	65-2600	L	C	C	2 1/2	10 1/2	7	FP	No	Zen	V	A-L	A-L	19	
20	Service 40	3240	168	185		4900	P 36x6	DP36x6	Bud DS6	6-3 1/4 x 5	309.6	31.5	56-2000	L	L	L				PC	No	Zen	V	A-L	A-L	20	
21	Service S11	2030	162			4500	P 32x6	DP32x6	Bud HS6	6-3 1/4 x 5	241.6	27.3	52-2200	L	L	L				PC	No	Zen	V	A-L	A-L	21	
22	Sterling DB11-64XL	150	164		11000	4295	P 34x7	P 34x7	Wau 6XL	6-3 1/4 x 4 1/2	260	29.4	58-2400	L	G	A	2 1/2	12 1/2	7	FP	No	Str	V	A-L	A-L	22	
23	Stewart 29X	1695	145	176	10235	4400	P 32x6	DP32x6	Lyc 4SL	6-3 1/4 x 4 1/2	224	25.3	61-2600	L	G	C	2 1/2	9 1/2	4	FP	No	Str	V	D-R	D-R	23	
24	Stewart 26XW	2290	165	190	11130	5095	P 32x6	DP32x6	Lyc TF	4-4 1/4 x 5	310	31.5	75-2750	L	G	C	2 1/2	10 1/2	4	FP	No	Str	V	D-R	D-R	24	
25	White 56	3125	165	175	13000	5096	S 36x4	S 36x7	Own GRG	4-4 1/4 x 5	289	25.6	46-1700	L	X	C	2 1/2	11 1/2	3	FP	No	Str	V	A-L	A-L	25	
26	Willis-Knight 20	1945	160	150		3800	P 32x6	P 34x7	Own	6-3 1/4 x 4 1/2	255	27.3	70-3200	X	C	C	2 1/2	12 1/2	7	FP	No	Str	V	A-L	A-L	26	
27	Willis-Knight 21	1995	164	196		3900	P 32x6	P 34x7	Own	6-3 1/4 x 4 1/2	255	27.3	70-3200	X	C	C	2 1/2	12 1/2	7	FP	No	Str	V	A-L	A-L	27	
2 1/2 Ton																											
28	Armleder 61 2 1/2-5 T.	134	199	19420		6620	P 32x6	DP32x6	Con 16R	6-4 1/4 x 1 1/2	360	40.8	80-2200	L	G	C	2 1/2	11 1/2	7	PC	No	Zen	V	D-R	A-L	28	
29	Atterbury H	173	199	14390		6700	P 32x6	DP32x6	Con 33B	6-4 1/4 x 1 1/2	311	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	29	
30	Brockway 170	170	200	17000		6800	P 32x6	DP32x6	Wau V	6-4 1/4 x 1 1/2	251.0	25.6	60-2200	L	G	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	30	
31	Chicago 25A	135	195			5550	S 36x4	S 36x8	Wau V	6-4 1/4 x 1 1/2	251.0	25.6	60-2200	L	G	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	31	
32	Chicago 26A	135	195			5800	P 34x7	DP34x7	Wau XK	6-3 1/4 x 4 1/2	298.0	33.7	61-2000	L	L	L				FP	No	Zen	V	A-L	A-L	32	
33	Chicago 30B	138	222			6120	S 36x5	S 36x10	Wau V	4-4 1/4 x 5	251.0	25.6	50-2200	L	L	L				FP	No	Zen	V	A-L	A-L	33	
34	Coleman C25D	120	144			6400	P 38x7	P 38x7	Bud DW6	6-3 1/4 x 5	331.0	33.7	73-2200	L	L	L				PC	No	Zen	V	A-L	A-L	34	
35	Commer 4580	175	192			7000	P 36x6	DP36x6	Bud BUS	6-4 1/4 x 1 1/2	389.4	38.4	73-2000	L	L	L				PC	No	Zen	V	A-L	A-L	35	
36	Commer 40	3240	168	185		5100	P 36x6	DP36x6	Bud DS6	6-3 1/4 x 5	309.6	31.5	56-2000	L	L	L				PC	No	Zen	V	A-L	A-L	36	
37	Corbitt 12B6	165	220	12500		4860	P 32x6	DP32x6	Con 16R	6-4 1/4 x 1 1/2	311	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	37	
38	Corbitt 12W6	165	220	12500		4910	P 32x6	DP32x6	Con 16R	6-4 1/4 x 1 1/2	311	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	38	
39	Corbitt 15B6	174	220	15500		5870	P 34x7	DP34x7	Con 16R	6-4 1/4 x 1 1/2	311	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	39	
40	Corbitt 15W6	183	224	15500		5870	P 34x7	DP34x7	Con 16R	6-4 1/4 x 1 1/2	311	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Zen	V	A-L	A-L	40	
41	DeLancey OX	175	240			6200	P 32x6	DP32x6	Con 6B	6-3 1/4 x 5	331.0	33.7	72-2400	L	L	L				PC	No	Zen	V	A-L	A-L	41	
42	DeLancey OX	175	240			6400	P 32x6	DP32x6	Her WXC	6-4 1/4 x 1 1/2	339	38.4	75-2400	L	G	C	2 1/2	13 1/2	7	FP	No	Zen	V	A-L	A-L	42	
43	Diamond T 551	2250	168	186	12640	5600	P 32x6	DP32x6	Her WXC	6-4 1/4 x 1 1/2	339	38.4	75-2400	L	G	C	2 1/2	13 1/2	7	PC	No	Zen	V	A-L	A-L	43	
44	Diamond T 500	2660	164	200	13260	5900	P 34x7	DP34x7	Her WXC	6-4 1/4 x 1 1/2	339	38.4	75-2400	L	G	C	2 1/2	13 1/2	7	PC	No	Zen	V	A-L	A-L	44	
45	Diamond T 506	2820	172	238	13340	5900	P 34x7	DP34x7	Her WXC	6-4 1/4 x 1 1/2	339	38.4	75-2400	L	G	C	2 1/2	13 1/2	7	PC	No	Zen	V	A-L	A-L	45	
46	Fagel 250	3100	175	196	12500	5250	P 32x6	DP32x6	Wau XK	6-3 1/4 x 4 1/2	244	27.3	67-2500	L	G	C	2 1/2	10 1/2	7	PC	No	Zen	V	A-L	A-L	46	
47	Federal 1250	151	176			4950	P 32x6	DP32x6	Con 16C	6-3 1/4 x 4																	

Line Number	Radiator Make	Type and Make	Gear Set		Aux. Locat. and Speeds	Universals Make and No.	Rear Axle				Front Axle		Brakes	Frame	Body Mounting Data		Springs		Auxiliary Type	Line Number							
			Clutch	Make and Model			Location	No. of Forward Speeds	Final Drive and Type	Drive and Torque	Gear Ratios Reduc. in High Reduc. in Low	Make and Model			Service	Area Service Brakes	Hand	Steering Gear Make			Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear
1	G&O	D.Ful	Ful	U	4	No	Spl	Tim	SF	H	5.83	37.9	Tim	L4IH	TX	Han	6x2x½	C	135	80	31	38x2	52¼x2½	½	4		
2	Own	D.Ful	Ful	U	4	No	Spl	Eat	B½	H	6.62	44.0	Eat	L4IH	TX	Han	6x2x½	C	135	80	31	38x2	52¼x2½	½	5		
3	Own	D.Ful	Ful	U	4	No	Spl	Eat	B½	H	6.62	44.0	Eat	L4IH	TX	Han	6x2x½	C	135	80	31	38x2	52¼x2½	½	6		
4	Own	D.Ful	Ful	U	4	No	Spl	Eat	B½	H	6.62	44.0	Eat	L4IH	TX	Han	6x2x½	C	135	80	31	38x2	52¼x2½	½	7		
5	Per	D.B-L	B-L 35	U	4	No	Spl	Tim 56000	BF	H	6.16	37.9	Tim 14703 H	L4IHV	TX	Ros	6x3x¾	C	144	91	31	42x2½	54x3	½	8		
6	Own	D.Own	Own AB	U	4	No	Spl	Own AB	CD	R	7.10	34.4	Own AB	L4IH	TX	Own	7x2½x¾	C	144	91	31	42x2½	54x3	½	9		
7	Own	D.Own	Own AB	U	4	No	Spl	Own AB	CD	R	7.10	34.4	Own AB	L4IH	TX	Own	7x2½x¾	C	144	91	31	42x2½	54x3	½	10		
8	Lon	P.B-L	B-L 35	U	4	No	Pet	Tim 54004 H	SF	R	5.83	32.9	Tim 12703 H	L4IH	275 TI	Own	7x2½x¾	C	144	91	31	42x2½	54x3	½	11		
9	You	D.Ful	FulMGU14	U	4	No	Blo	Wls 4610	2F	R	6.00	39.0	Shu 310	L4IH	TX	Own	7x2½x¾	C	144	91	31	42x2½	54x3	½	12		
10	Own	D.Own	Own XA	U	4	No	Spl	Own XA	W½	R	5.5	44.2	Own XA	L4IH	TX	Own	7x2½x¾	C	144	91	31	42x2½	54x3	½	13		
11	Fed	P.B&B	B-L	U	4	No	Spl	Tim	BF	H	5.28	33.3	Own	L4IH	TX	Gem	6x3x¾	C	144	91	31	42x2½	54x3	½	14		
12	Lon	D.B-L	B-L 35	U	4	No	Blo	Own 30	2F	R	6.45	34.5	Tim 14704 H	L4IH	TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	15		
13	Lon	D.B-L	B-L 20	U	4	No	Blo	Own 20	2F	R	6.00	39.0	Col 5530	L4IH	TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	16		
14	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Own 60	2F	R	5.88	35.5	Tim 14704 H	L4IH	TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	17		
15	Own	D.B-L	Own	U	4	No	Cle	Own	S½	H	5.7	37.6	Own	L4IH	289 TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	18		
16	Own	D.B-L	Own	U	4	No	Cle	Own	S½	H	5.7	37.6	Own	L4IH	289 TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	19		
17	Own	D.B-L	Own	U	4	No	Cle	Own	S½	H	5.7	37.6	Own	L4IH	289 TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	20		
18	You	D.B-L	B-L 35	U	4	No	Spl	Tim 54000 H	SF	H	6.37	31.7	Tim 12703 H	L4IH	452 TX	Ros	6x3x¾	C	144	90	31½	40x2½	50x3	½	21		
19	Lon	P.B-L	B-L 20	U	4	No	Blo	Tim 63702	WF	R	6.5	34.8	Tim 14704 H	L4IH	TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	22		
20	Lon	P.B-L	B-L	U	4	No	Blo	Tim 54000	SF	H	5.8	29.2	Col 5530	L4IH	TX	Han	6x3x¾	C	144	90	31½	40x2½	50x3	½	23		
21	Per	D.B-L	B-L 35	U	4	No	Spl	Tim 56000 H	BS	R	7.4	39.7	Tim 12703 H	L4IH	TX	Ros	5½x2½x¾	C	124	70	33½	40x3	54x3	½	24		
22	Own	D.Ful	Ful	U	4	No	Spl	Tim	SF	R	6.37	44.4	Cl	B4IM	TX	Ros	7½x2½x¾	C	114	63	32	38x2½	50x3	½	25		
23	Fed	P.B&B	B-L	U	4	No	Spl	Tim 65001 H	WF	H	7.33	46.0	Shu 5582B	L4IHV	TX	Ros	7½x2½x¾	C	137	80	32	38½x2½	50x3	½	26		
24	Own	P.Own	OwnGRBB	U	4	No	Spl	Own 56	2F	R	6.37	31.7	Tim 12703 H	L4IH	TX	Ros	7½x2½x¾	C	137	80	32	38½x2½	50x3	½	27		
25	Fed	P.B&B	Ful K U	U	4	No	Blo	Eat 1504	S½	H	6.63	43.1	Own	OE4IM	2I	Ros	7x2½x¾	P	126	73	34	40x2½	52x3	½	28		
26	Fed	P.B&B	Ful K U	U	4	No	Blo	Eat 1504	S½	H	6.63	43.1	Own	OE4IM	2I	Ros	7x2½x¾	P	150	87	34	40x2½	52x3	½	29		
27	Fed	P.B&B	Ful K U	U	4	No	Blo	Eat 1504	S½	H	6.63	43.1	Own	OE4IM	2I	Ros	7x2½x¾	P	150	87	34	40x2½	52x3	½	30		
28	You	D.B-L	B-L	U	4	No	Spl	Tim 56000 H	WF	H	6.16	32.9	Tim 14703 H	L4IHV	CD	Ros	8x3x¾	C	148	90	34	40x2½	62½x2½	½	31		
29	G&O	D.B-L	B-L 554	U	4	No	Spl	Wl 69317L	2F	R	7.41	41.5	Shu 5582B	L4IHV	TD	Ros	8x3x¾	T	142	83	34	41½x3	54x3	½	32		
30	Chi	D.B-L	B-L 35	U	4	No	Spl	Tim 65001 H	WF	H	7.75	41.5	Tim 15733 H	L4IH	TX	Ros	8x3x¾	T	142	83	34	40x2½	54x3	½	33		
31	Chi	D.B-L	B-L 35	U	4	No	Spl	Tim 65001 H	WF	H	7.75	41.5	Tim 15733 H	L4IH	TX	Ros	8x3x¾	T	142	83	34	40x2½	54x3	½	34		
32	Chi	D.B-L	B-L 35	U	4	No	Spl	Tim 65001 H	WF	H	7.75	41.5	Tim 15733 H	L4IH	TX	Ros	8x3x¾	T	142	83	34	40x2½	54x3	½	35		
33	Per	D.Ful	Ful G U14	U	8	No	Spl	Wls	2F	R	8.33	159	Wls	L4IH	TX	Ros	8x3x¾	T	108	78	34	40x2½	54x3	½	36		
34	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Tim 65706Dh	WF	H	8.5	63.0	Tim 15733 H	L4IH	TX	Han	8x3x¾	T	156	97	34	40x2½	54x3	½	37		
35	Lon	D.B-L	B-L 35	U	4	No	Blo	Tim 63702	WF	H	6.5	34.8	Tim 14704 H	L4IH	TX	Han	8x3x¾	T	144	90	34	40x2½	54x3	½	38		
36	Lon	D.B-L	B-L 51	U	4	No	Spl	Tim 56001 H	BF	H	Opt	Opt	Tim 14703	L4IH	TX	Ros	7x3½x¾	T	134	87	34	40x2½	54x3	½	39		
37	Per	D.B-L	B-L 51	U	4	No	Spl	Tim 65001 H	BF	H	Opt	Opt	Tim 14703	L4IH	TX	Ros	7x3½x¾	T	134	87	34	40x2½	54x3	½	40		
38	Per	D.B-L	B-L 51	U	4	No	Spl	Tim 58000 H	BF	H	Opt	Opt	Tim 15733 H	L4IH	TX	Ros	7x3½x¾	T	144	97	34	40x2½	54x3	½	41		
39	Per	D.B-L	B-L 51	U	4	No	Spl	Tim 58000 H	BF	H	Opt	Opt	Tim 15733 H	L4IH	TX	Ros	7x3½x¾	T	144	97	34	40x2½	54x3	½	42		
40	Per	D.B-L	B-L 51	U	4	No	Spl	Tim 58000 H	BF	H	Opt	Opt	Tim 15733 H	L4IH	TX	Ros	7x3½x¾	T	144	97	34	40x2½	54x3	½	43		
41	Own	D.Ful	Ful	U	4	No	Spl	Wls	2F	R	7.25	Opt	Shu	L4IH	TX	Ros	7x3½x¾	T	160	110	34	40x2½	54x3	½	44		
42	Own	D.Ful	Ful	U	4	No	Spl	Wls	2F	R	7.25	Opt	Shu	L4IH	TX	Ros	7x3½x¾	T	160	110	34	40x2½	54x3	½	45		
43	G&O	D.Cov	Cov	U	4	No	Spl	Tim 58000 H	SF	H	7.12	38.9	Shu 5582D	L4IHV	TD	Ros	6½x3x¾	C	148	90	34	45½x2½	56x3	½	46		
44	G&O	D.Cov	Cov	U	4	No	Spl	Tim 58000 H	SF	H	7.12	38.9	Shu 5582D	L4IHV	TD	Ros	6½x3x¾	C	148	90	34	45½x2½	56x3	½	47		
45	G&O	D.Cov	Cov	U	4	No	Spl	Wls 6537B-L	2F	R	8.33	48.5	Shu 5582B	L4IH	TX	Ros	6½x3x¾	C	167	99	34	40x2½	56x3	½	48		
46	Own	D.B-L	B-L 35	U	4	No	Spl	Tim 56000 H	WF	H	8.88	20.6	Tim 14700 H	L4IH	TX	Ros	6x3x¾	C	119	71	34	40x2½	51½x3	½	49		
47	Lon	P.B&B	Own	U	4	No	P-8-2	Tim 58000 H	BF	R	5.83	41.3	Cl	L4IHV	TI	Ros	6x3x¾	C	119	71	34	40x2½	51½x3	½	50		
48	Lon	P.B&B	Own	U	4	No	P-8-2	Tim 58000 H	BF	R	5.83	41.3	Cl	L4IHV	TI	Ros	6x3x¾	C	119	71	34	40x2½	51½x3	½	51		
49	Lon	P.B&B	Own	U	4	No	P-8-2	Tim 58000 H	BF	R	5.83	41.3	Cl	L4IHV	TI	Ros	6x3x¾	C	119	71	34	40x2½	51½x3	½	52		
50	Lon	D.B-L	B-L 35A	U	4	No	Blo	Tim 65001 H	WF	R	6.75	43.9	Tim 14703 H	L4IH	TX	Ros	7½x2½x¾	C	120	80	32	42x2½	54x3	½	53		
51	Lon	D.B-L	B-L 35A	U	4	No	Blo	Tim 65001 H	WF	R	6.75	43.9	Tim 14703 H	L4IH	TX	Ros	7½x2½x¾	C	120	80	32	42x2½	54x3	½	54		
52	Per	D.B-L	B-L	U	7	R1	Blo	Tim 65000 H	BF	H	9.95	84.7	Own	O4IM	252 2I	Ros	5½x2½x¾	C	115	80	36	42½x2½	54x3	½	55		
53	Lon	D.B-L	B-L 35	U	4	No	Blo	Tim 63702	WF	H	1.5	34.8	Tim 14704 H	L4IH	TX	Han	5½x2½x¾	C	144	90	34	40x2½	54x3	½	56		
54	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Tim 65706Dh	WF	H	8.5	63.0	Tim 15733 H	L4IH	TX	Han	8x3x¾	T	156	97	34	40x2½	54x3	½	57		
55	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Eat 1617	S½	H	5.63	63.0	Eat 433F	B4IM	TX	Jac	6½x3x¾	C	107	59	34½	38x2½	50x3	½	58		
56	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Eat 1617	S½	H	5.63	63.0	Eat 433F	B4IM	TX	Jac	6½x3x¾	C	107	59	34½	38x2½	50x3	½	59		
57	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Eat 1617	S½	H	5.63	63.0	Eat 433F	B4IM	TX	Jac	6½x3x¾	C	107	59	34½	38x2½	50x3	½	60		
58	Lon	D.B-L	B-L 51-5	U	5	No	Blo	Eat 1617	S½	H	5.63	63.0	Eat 433F	B4IM	TX	Jac	6½x3x¾	C	107	59	34½	38x2½	50x3	½	61		
59	McC	D.B-L	B-L 35-4	U	4	No	Spl	Tim 63721 H	WF	R	7.66	40.9	Tim 12703 H	L4IHV	TX	Ros	7x2½x¾	C	120	77	34	40x2½	52x3	½	62		
60	Lon	D.B-L	B-L 35-4	U	4	No	Spl	Tim 63702 H	WF	R	Opt	Opt	Tim 12703 H	L4IHV	TX	Ros	7x2½x¾	C	120	77	34	40x2½	52x3	½	63		
61	Own	D.Ful	Ful G U	U	4	No	Own	Wls 4626-L	2F	R	5.0	32.0	Col 5500	L4IHV	TX	Ros	7x2½x¾	C	120	77	34	40x2½	52x3	½	64		
62	Own	D.Ful	Ful G U	U	4	No	Own	Wls 4626-L	2F	R	5.0	32.0	Col 5500	L4IHV													

Line Number	Make, Model and Capacity	General			Tire Size		Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Engine														Fuel System		Electrical System		Line Number
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)					Front	Rear	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make				
3 Ton—Cont'd																													
1	Autocar TB 5100	213	213		7300	P 36x8	DP36x8	Own	6-4 1/2 x 5 1/2	404.0	43.3	90-2000	L	L	G	C	3	15	7	7	FP	Ha	...	V	R-Bo	...	1		
2	Brockway K 154	189	15000		5855	S 36x5	S36x10	Con K4	4-4 1/2 x 5 1/2	281.0	27.2	36-...	L	L	G	C	3	8 1/2	3	3	FP	KP	Zen	V	Els	...	2		
3	Brockway K 170	226	15000		6290	S 36x5	S 36x10	Con L4	4-4 1/2 x 5 1/2	350.0	32.4	42-...	L	L	G	C	3	10	4	4	FP	KP	Zen	V	L-N	...	3		
4	Brockway K 170	226	15000		6920	P 34x7	DP34x7	Wis H	6-4x5	377.0	38.4	42-...	L	L	H	G	C	10 1/2	4	4	FP	KP	Zen	V	L-N	...	4		
5	Chicago 31D	159	231		6970	S 36x5	S 36x10	Wau CU	4-4 1/2 x 5 1/2	346.0	30.6	78-2000	L	L	H	G	C	10 1/2	4	4	FP	KP	Zen	V	Apo	...	5		
6	Chicago 32B	164	236		7240	P 36x8	DP36x8	Wau KU	4-4 1/2 x 5 1/2	404.0	43.3	78-2000	L	L	H	G	C	10 1/2	4	4	FP	KP	Zen	V	Apo	...	6		
7	Clinton 65	184	Op	14500	5925	S 34x5	DS34x5	Bud ETU	4-4 1/2 x 5 1/2	312.0	28.9	49-1900	L	L	G	C	3	10 1/2	4	4	FP	KP	Zen	V	Spl	...	7		
8	Clinton 65-6	154	Op	15175	5175	P 38x7	DP38x7	Bud DW 6	6-3 3/4 x 5	330.0	33.7	73-2400	L	L	G	C	3	10 1/2	4	4	FP	No	Zen	V	Spl	...	8		
9	Coleman D40	130	180	16600	8500	P 40x8	P 40x8	Bud DW 6	6-3 3/4 x 5	330.0	33.7	72-2600	L	L	G	C	3	9	4	4	FP	No	Zen	V	D-R	...	9		
10	Concord JX-6	154	174	17200	6700	P 34x7	DP34x7	Bud DW 6	6-3 3/4 x 5	330.0	33.7	73-2100	L	L	G	C	3	9	4	4	FP	No	Zen	V	D-R	...	10		
11	Corbitt 15B6	174	220		5870	P 34x7	DP34x7	Con 16R	6-4x4 1/2	311.0	38.4	72-2400	H	L	G	C	3	10 1/2	4	4	FP	No	Zen	V	D-R	...	11		
12	Corbitt 15W6	183	224		6160	P 34x7	DP34x7	Con 16R	6-4x4 1/2	311.0	38.4	72-2400	H	L	G	C	3	10 1/2	4	4	FP	No	Zen	V	D-R	...	12		
13	Corbitt 18W6	178	230	18500	6530	P 34x7	DP34x7	Con 18R	6-4x4 1/2	340.0	38.4	82-2400	H	L	G	C	3	13 1/2	4	4	FP	No	Zen	V	D-R	...	13		
14	Day-Elder JF 3900	156	204	14800	6900	P 34x7	DP34x7	Con 18R	6-4x4 1/2	340.0	38.4	82-2400	H	L	G	C	3	13 1/2	4	4	FP	No	Zen	V	D-R	...	14		
15	Diamond T 602	3440	169	231	15490	7500	P 36x8	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-2200	L	L	G	C	3	15	7	7	FP	Co	Zen	V	G-A	...	15		
16	Diamond T 606	3500	176	242	15340	7500	P 36x8	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-2200	L	L	G	C	3	15	7	7	FP	Co	Zen	V	G-A	...	16		
17	Dodge Bros. 1845	135	135	12250	4235	P 32x6	DP32x6	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	17	
18	Dodge Bros. 1875	135	135	12250	4155	P 34x7	P 36x8	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	18	
19	Dodge Bros. 1960	135	135	12250	4355	P 34x7	DP34x7	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	19	
20	Dodge Bros. 1895	165	165	12320	4520	P 32x6	DP32x6	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	20	
21	Dodge Bros. 1925	165	165	12320	4440	P 34x7	P 36x8	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	21	
22	Dodge Bros. 2010	165	165	12320	4640	P 34x7	DP34x7	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	22	
23	Dodge Bros. 1945	185	185	12715	4715	P 32x6	DP32x6	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	23	
24	Dodge Bros. 1975	185	185	12715	4635	P 34x7	P 36x8	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	24	
25	Dodge Bros. 2060	185	185	12715	4835	P 34x7	DP34x7	Own	6-3 3/4 x 5	241.0	27.3	78-3000	L	L	G	C	3	11	7	7	FP	KP	Ha	Zen	V	Els	...	25	
26	Duplex FAC	166		16000	7200	S 34x5	S 36x8	Bud EBU-I	4-4 1/2 x 5 1/2	312.0	28.9	57-2100	L	L	G	C	3	10 1/2	4	4	FP	No	Zen	V	Els	...	26		
27	Duplex SAC	166		16000	7200	S 34x5	S 36x8	Bud BA 6	4-4 1/2 x 5 1/2	411.0	40.8	78-2250	L	L	G	C	3	9 1/2	4	4	FP	No	Zen	V	Els	...	27		
28	Fageol 340	4750	182	200	18500	7820	P 36x6	DP36x6	Wau CU	4-4 1/2 x 5 1/2	346.0	33.7	78-1700	L	L	G	A	3	13 1/2	4	4	FP	Wa	Zen	V	D-R	...	28	
29	Fageol 365	4200	182	200	15500	7250	P 36x6	DP36x6	Wau KS	4-4x4 1/2	404.0	38.4	87-2500	L	L	G	A	3	13 1/2	4	4	FP	Wa	Zen	V	D-R	...	29	
30	Fageol 370	4200	182	200	18500	8080	P 36x6	DP36x6	Wau SLL	4-4 1/2 x 5 1/2	462.0	43.3	89-2200	L	L	G	A	3	13 1/2	4	4	FP	Wa	Zen	V	D-R	...	30	
31	Federal U6-3 1/2	3860	165	201	19000	7210	P 34x7	DP34x7	Con 18R	6-4x4 1/2	339.0	38.4	81-2200	L	L	G	C	3	13 1/2	4	4	FP	KP	Str	V	D-R	...	31	
32	Freeman DW144	4900	144		7560	P 34x7	DP34x7	Bud DW 6	6-3 3/4 x 5	330.0	33.7	73-2400	L	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	E-R	...	32		
33	Freeman DW186 3-3 1/2	5100	186		7800	P 34x7	DP34x7	Bud DW 6	6-3 3/4 x 5	330.0	33.7	73-2400	L	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	E-R	...	33		
34	F.W.D. 6	4200	124	156	13960	6460	S 36x6	S 36x6	Own A	4-4 1/2 x 5 1/2	398.0	38.4	56-1350	T	L	G	C	3	12	3	3	FP	Pe	Str	V	Els	...	34	
35	Garford 60	4680	175	192	7100	P 36x6	DP36x7	Bud BUS	6-4x5 1/2	386.4	38.4	73-2000	L	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	Els	...	35		
36	Gen. Mot. 4203 3-3 1/2	1960	141	181	14000	4905	P 36x5	DP36x5	Bulek	6-3 3/4 x 5	257.5	28.3	76-2500	I	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	Els	...	36	
37	Gen. Mot. 4403 3-3 1/2	2080	141	181	14000	5005	P 36x6	DP36x6	Bulek	6-3 3/4 x 5	257.5	28.3	76-2500	I	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	Els	...	37	
38	Gen. Mot. 5208	3790	155	201	15500	7010	B 9.75/20	B 10.50/24	Bulek	6-3 3/4 x 5	331.4	33.7	94-2500	I	L	G	C	3	10 1/2	4	4	FP	Co	Str	V	Els	...	38	
39	Gottfredson RW54	Op			7500	S 36x4	S 36x8	Bud KBU-I	4-4x5 1/2	263.9	28.9	94-1800	L	L	G	C	3	13 1/2	4	4	FP	Co	Str	V	Els	...	39		
40	Gottfredson RW56	Op			7500	P 34x7	DP34x7	Her WXC	6-4x4 1/2	339.0	38.4	74-...	L	L	G	C	3	13 1/2	4	4	FP	Co	Str	V	Els	...	40		
41	Gottfredson RB56	Op			7500	P 34x7	DP34x7	Own	6-4x4 1/2	339.0	38.4	74-...	L	L	G	C	3	13 1/2	4	4	FP	Co	Str	V	Els	...	41		
42	Gottfredson RB56 3-4 T	Op			7500	P 34x7	DP34x7	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-...	L	L	G	C	3	15	7	7	FP	Co	Str	V	Els	...	42		
43	Gramm E-150	2595	150	196	5200	P 34x7	DP34x7	Lyc TS	6-3 3/4 x 5	353.8	36.2	85-2200	L	L	G	C	3	15	7	7	FP	Co	Str	V	Els	...	43		
44	Gramm EY-190	3535	190	190	13750	P 32x6	DP32x6	Con 20-R	6-4 1/2 x 5 1/2	350.8	36.2	85-2200	L																

Line Number	Radiator Make	Clutch	Gear Set		No. of Forward Speeds	Aux. Locat. and Speeds	Universals	Make and No.	Rear Axle		Front Axle		Brakes		Steering Gear Make	Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			Type and Make	Make and Model					Final Drive and Type	Drive and Torque	Gear Ratio	Service	Area Service Brakes	Hand		Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front			Rear																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System	Electrical System	Line Number								
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings		No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
3 1/2 Ton—Cont'd																											
1	Fisher Super Six	156	190			4900	P 34x7	DP34x7	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	112-2400	H	G	C	2 1/2	9 1/2	4	FP	Co	Zen	V	A-L	A-L	1	
2	Freeman BASF 3 1/2-T	5500	144	144		7760	P 38x9	DP38x9	Bud BA6	6-4 1/2 x 5 1/2	411.0	40.8	78-2250	L	G	C	2 1/2	13 1/2	4	PC	Co	Zen	V	A-L	A-L	2	
3	F.W.D. CU-6	4575	148		16720	7200	S 36x6	S 36x6	Wau	6-4 1/2 x 5 1/2	358.0	38.4	76-2500	L	G	C	2 1/2	13 1/2	4	PC	Co	Zen	V	A-L	A-L	3	
4	Garford	80	5250	175	192	8200	S 36x6	S 36x12	Bud BA6	6-4 1/2 x 5 1/2	411.0	40.8	85-2400	L	G	C	2 1/2	9 1/2	4	PC	Co	Zen	V	A-L	A-L	4	
5	General Motors	6202	3055	154	201	16500	P 34x7	DP34x7	Bulek	6-3 1/2 x 5	331.4	33.7	94-2400	I	G	C	2 1/2	8 1/2	4	PC	Co	Zen	V	A-L	A-L	5	
6	Gen. Mot. 8201 3 1/2-T	3795	155	201	18000	7210	P 38x7	DP38x7	Bulek	6-3 1/2 x 5	331.4	33.7	94-2500	I	G	C	2 1/2	8 1/2	4	PC	Co	Zen	V	A-L	A-L	6	
7	Gotfredson RW6A	160	180			3635	S 36x10	Bud EBU-I	Bud EBU-I	6-4 1/2 x 5 1/2	312.0	32.4	48-1850	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	7	
8	Gramm-Bernstein	30	150	168		6560	P 36x5	DS36x5	Con L4	6-4 1/2 x 5 1/2	349.9	32.4		L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	8	
9	Hahn 47HB	151		15535		6900	P 34x7	DP34x7	Con 18R	6-4 1/2 x 5 1/2	339.2	38.4	82-2400	H	C	C	2 1/2	10 1/2	4	FP	Co	Zen	V	A-L	A-L	9	
10	Hahn 47HBL	164	184			7100	P 34x7	DP34x7	Con 18R	6-4 1/2 x 5 1/2	339.2	38.4	82-2400	H	C	C	2 1/2	10 1/2	4	FP	Co	Zen	V	A-L	A-L	10	
11	Hug	87		19030		6550	P 38x7	DP38x7	Bud DW6	6-3 1/2 x 5	330.0	33.7	70-2100	L	G	C	2 1/2	9 1/2	4	PC	Co	Zen	V	A-L	A-L	11	
12	Hug	87M	120	127	21800	7400	P 36x8	DP36x8	Bud DW6	6-3 1/2 x 5	330.0	33.7	70-2100	L	G	C	2 1/2	9 1/2	4	PC	Co	Zen	V	A-L	A-L	12	
13	Indiana	136	163	199	19000	7400	P 36x8	DP36x8	Bud DW6	6-3 1/2 x 5	330.0	33.7	70-2100	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	13	
14	Indiana	636	169	205	18000	7625	S 36x5	S 36x12	Wia H	6-4 1/2 x 5 1/2	377.0	38.4	72-2000	H	G	C	2 1/2	10 1/2	4	FP	Co	Zen	V	A-L	A-L	14	
15	Int. Harv'tr. HS-74	160	235	27000		9690	S 36x6	S 40x12	Has 152	4-4 1/2 x 5 1/2	390.0	36.1	60-1800	H	C	A	3	8 1/2	3	PC	Co	Zen	V	A-L	A-L	15	
16	Int. Harv'tr. HS-74C	160	235	27400		10290	S 36x6	S 40x12	Has 152	4-4 1/2 x 5 1/2	390.0	36.1	60-1800	H	C	A	3	8 1/2	3	PC	Co	Zen	V	A-L	A-L	16	
17	Kenworth	205	5850	172	223	20500	P 36x8	DP36x8	Bud GL6	6-4 1/2 x 6	572.5	48.6	114-1900	L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	17	
18	Kleiber	4800	170			7600	S 36x5	DS36x5	Con B5	6-4 1/2 x 6	425.3	36.0		L	G	C	3	9 1/2	4	PC	Co	Zen	V	A-L	A-L	18	
19	La France-Republic LI	180		18000		6900	P 36x8	DP36x8	Wau 6KS	6-4 1/2 x 5 1/2	358.0	38.4	77-2500	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	19	
20	LaFra-Republic M-1	171		20000		6900	P 36x8	DP36x8	Wau CU	4-4 1/2 x 5 1/2	346.0	30.6		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	20	
21	LaFra-Republic 25W	165				6100	S 36x5	S 36x12	Wau CU	4-4 1/2 x 5 1/2	346.0	30.6		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	21	
22	Mack AC	4950	168			9200	S 36x5	DS40x5	Own AC	4-5x6	471.2	40.0		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	22	
23	Mack AK	5250	174			9000	S 36x5	DS36x5	Own AC	4-5x6	471.2	40.0		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	23	
24	Mack AK	5150	174			8950	S 36x5	DS36x5	Own AC	4-5x6	471.2	40.0		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	24	
25	Moreland	3600	182		15000	6000	P 34x7	DP34x7	Her WXC 2	6-4 1/2 x 4 1/2	360.8	38.4	73-3000	L	G	C	2 1/2	13 1/2	7	FP	Co	Zen	V	A-L	A-L	25	
26	Pierce-Arrow	HB	4500	156	198	7800	S 36x5	DS36x6	Own	4-4 1/2 x 5 1/2	325.5	25.5		L	G	C	3	10 1/2	4	PC	Co	Zen	V	A-L	A-L	26	
27	Relay	60	4720	175	192	7800	P 38x7	DP40x8	Bud BUS	6-4 1/2 x 5 1/2	386.4	38.4	73-2000	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	27	
28	Relay	80	5330	175	192	8600	P 36x6	S 40x12	Bud BA 6	6-4 1/2 x 5 1/2	411.0	40.8	83-2000	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	28	
29	Seiden Roadmast 47cb	151	184			6700	P 34x7	DP34x7	Con 18R	6-4 1/2 x 5 1/2	339.2	38.4	85-2400	H	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	29	
30	Service	80	5250			8200	S 36x6	S 36x12	Bud BA 6	6-4 1/2 x 5 1/2	339.2	38.4	83-2000	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	30	
31	Standard K 3 1/2-T	160	172			7465	S 36x5	S 36x12	Con L4	6-4 1/2 x 5 1/2	349.9	32.4		L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	31	
32	Standard KS 3 1/2-T	160	172			7519	S 36x5	S 36x12	Con L4	6-4 1/2 x 5 1/2	349.9	32.4		L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	32	
33	Sterling DW18-64XK	163	177	15000		5775	S 36x5	S 36x8	Wau 6XK	6-4 1/2 x 5 1/2	298.0	33.7	66-2400	L	G	A	2 1/2	12 1/2	7	FP	Co	Zen	V	A-L	A-L	33	
34	Stewart	19X	4690	165	235	6990	S 36x5	S 36x10	Lyc TS	6-3 1/2 x 5	354.0	36.2	90-2750	L	G	C	2 1/2	10 1/2	4	PC	Co	Zen	V	A-L	A-L	34	
35	Studebaker	99	3795	184		5427	B 7.50/20	B 7.50/20	Own	8-3 1/2 x 4 1/2	337.0	39.2	114-3200	L	G	S	2 1/2	9 1/2	4	PC	Co	Zen	V	A-L	A-L	35	
36	Walter	FKD	6200	174	215	7500	P 38x7	DP38x7	Own 6	6-4 1/2 x 4 1/2	404.0	43.4	80-1800	L	G	S	3	13 1/2	7	FP	Co	Zen	V	A-L	A-L	36	
37	White	55	4650	174	215	8402	S 36x5	DS40x5	Own GRB	6-4 1/2 x 5 1/2	326.3	28.9	56-1800	L	G	S	2 1/2	11 1/2	4	PC	Co	Zen	V	A-L	A-L	37	
4 Ton																											
39	Armleder	41		Op	199	16300	P 34x7	DP34x7	Her WXC	6-4 1/2 x 4 1/2	339	38.4	73-2000	L	G	C	2 1/2	12 1/2	7	FP	Co	Zen	V	A-L	A-L	39	
40	Atterbury	22D	174	198		8300	P 36x8	DP36x8	Con 20R	6-4 1/2 x 4 1/2	381	40.8	82-2400	L	G	C	2 1/2	12 1/2	7	FP	Co	Zen	V	A-L	A-L	40	
41	Brookway	R	164	191	20000	7890	S 36x5	S 36x12	Con L4	4-4 1/2 x 5 1/2	350	32.4	42	L	G	C	2 1/2	6 1/2	3	FP	Co	Zen	V	A-L	A-L	41	
42	Brookway	RT	175	200	20000	8100	S 36x5	S 36x12	Con B7	4-5x6	471.2	40.0	52	L	G	C	2 1/2	7 1/2	3	FP	Co	Zen	V	A-L	A-L	42	
43	Chicago	40C		Op	Op	10175	S 36x6	S 36x12	Wau EU	4-5x6 1/2	40.0			L	L	L				FP	Co	Zen	V	A-L	A-L	43	
44	Clinton	90		Op	Op	8000	S 36x5	DS36x6	Bud YTU	6-4 1/2 x 6	381	32.4	50-1400	L	G	C	2 1/2	11 1/2	3	PC	Co	Zen	V	A-L	A-L	44	
45	Clinton	90M		Op	Op	8000	S 36x5	DS36x6	Bud YTU	6-4 1/2 x 6	381	32.4	50-1400	L	G	C	2 1/2	11 1/2	3	PC	Co	Zen	V	A-L	A-L	45	
46	Commercial	80	5330	175	192	8400	S 36x6	S 36x14	Bud BA 6	6-4 1/2 x 5 1/2	381	40.8	85-2400	L													

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Line Number					
			Make and Model	Location		Make and Model	Final Drive and Type	Make and Model	Make and Model	Service	Arm Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type		
1	Lon	D.B-L	B-L 55	A	7	Blo	Tim 65706 H	BF	8.5	80.7	Tim 15733 H	OF4XM	336	RX	Ros	7x3 1/2 x 1/2	C	120	80	72 1/2	54x3	52x4	1
2	Lon	D.Ful	Ful H U 16	A	2	BC	Own U	BF	8.5	155	Own U	O4IM	252	21	Ros	7x3 1/2 x 1/2	C	100	100	132	54x3	52 1/2 x 2 1/2	2
3	Lon	P.B&B	B-L 60 Max	A	4	Op	Tim 66700DP	WF	10.3	98.2	Tim 16302	B4IM	687	TX	Jac	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	3
4	Lon	D	B-L	A	4	No	Tim 65706	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	70	34 1/2	40x3	54x3	4
5	Lon	D	B-L	A	4	No	Tim 65706	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	70	34 1/2	40x3	54x3	5
6	Lon	D	B-L	A	4	No	Tim 65706	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	70	34 1/2	40x3	54x3	6
7	McC	D.B-L	B-L 55 Max	A	4	No	Tim 65706dhp	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	70	34 1/2	40x3	54x3	7
8	Lon	D.B-L	B-L 55-7	A	4	No	Tim 65706dhp	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	70	34 1/2	40x3	54x3	8
9	Own	D.Ful	Ful G7	A	8	No	Tim 5800 H	BF	7.75	63.7	Shu 610	L4IHV	TD	TD	Ros	7x3 1/2 x 1/2	C	130	81 1/2	34	40x2 1/2	56x3	9
10	Chi	D.B-L	B-L 35	U	4	No	Tim 5800 H	BF	7.75	63.7	Shu 610	L4IHV	TD	TD	Ros	7x3 1/2 x 1/2	C	130	81 1/2	34	40x2 1/2	56x3	10
11	Chi	D.B-L	B-L 35	U	4	No	Tim 5800 H	BF	7.75	63.7	Shu 610	L4IHV	TD	TD	Ros	7x3 1/2 x 1/2	C	130	81 1/2	34	40x2 1/2	56x3	11
12	You	D.B-L	B-L 51	U	4	No	Tim 5800 H	BF	7.75	63.7	Shu 610	L4IHV	TD	TD	Ros	7x3 1/2 x 1/2	C	130	81 1/2	34	40x2 1/2	56x3	12
13	You	D.B-L	B-L 51	U	4	No	Tim 5800 H	BF	7.75	63.7	Shu 610	L4IHV	TD	TD	Ros	7x3 1/2 x 1/2	C	130	81 1/2	34	40x2 1/2	56x3	13
14	McC	P.B&B	B-L 55 Max	A	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	14
15	McC	P.B&B	B-L 55 Max	A	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	15
16	Own	P.Own	Own	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	16
17	Own	P.Own	Own	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	17
18	Own	P.Own	Own	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	18
19	R-T	D.B-L	B-L 60	A	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	19
20	Own	D.Ful	Ful	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	20
21	Own	D.B-L	B-L	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	21
22	Own	D.B-L	B-L	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	22
23	Own	P.Own	Own AC	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	23
24	Own	P.Own	Own AK	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	24
25	Own	P.Own	Own AK	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	25
26	Own	P.Own	Own AK	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	26
27	G&O	D.Own	B-L 51	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	27
28	Own	D.B-L	B-L 51-5	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	28
29	Own	P.B&B	Cov SHO	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	29
30	Own	D.B-L	B-L	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	30
31	Lon	P.B&B	B-L 60 Max	A	7	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	31
32	Lon	D.B-L	B-L 55	A	7	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	32
33	Lon	D.B-L	B-L 60	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	33
34	Hex	D.B-L	B-L 51	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	34
35	Mod	D.Ful	Ful	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	35
36	Lon	D.Own	Own	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	36
37	Own	P.Own	Own 4B	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	37
38	Own	P.Own	Own 4B	U	4	No	Tim 65700DP	WF	8.5	52.5	Eat 527 F	B4IM	795	TX	Ros	9x3 1/2 x 1/2	C	125	69 1/2	34 1/2	40x3	54x3	38
39	Own	D.Ful	Ful MG U	U	4	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	39
40	You	D.B-L	B-L	U	4	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	40
41	Fed	D.B-L	B-L 55 Max	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	41
42	Bus	D.B-L	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	42
43	Bus	D.B-L	B-L 60	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	43
44	Chi	D.B-L	B-L 70 Max	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	44
45	Own	D.B-L	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	45
46	Own	D.B-L	B-L 55 Max	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	46
47	Own	D.Own	B-L 60 Max	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	47
48	Per	D.B-L	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	48
49	Per	D.B-L	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	49
50	G&O	D.B-L	B-L 60	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	50
51	Bus	D.Cov	B-L	U	4	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	51
52	Per	D.B-L	B-L 55&60	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	52
53	Per	D.B-L	B-L 55&60	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	53
54	Per	D.B-L	B-L 55&60	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	54
55	Per	P.B&B	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	55
56	Lon	P.B&B	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	56
57	Lon	P.B&B	B-L 55	A	7	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros	7x3 1/2 x 1/2	C	169 1/2	103 1/2	34	40x2 1/2	62 1/2 x 2 1/2	57
58	Lon	D.Ful	Ful H U 16	A	8	No	Tim 58000	2F	H	7.25	38.8	Shu 5572	L4IHV	CD	Ros</								

Line Number	Make, Model and Capacity	General		Tire Size		Make and Model	Engine										Fuel System		Electrical System		Line Number							
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)		Chassis Wt. (Stripped)	Front	Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make		
5 Ton—Cont'd																												
1	Gramm.....HY-236	6545	236	236	22600	9600	P 36x8	DP36x8	Con 16H	6-3 1/2 x 5 1/2	611.3	54.1	127-2300	L	G	A	3	13H	7	PC	Pe	Zen	M	A-L	A-L	1		
2	Gramm.....60	4745	153	200	20700	8700	S 36x14	S 36x14	Her G	4-4 1/2 x 5 1/2	353.8	36.1	85-2200	L	L	G	A	2 1/2	10	4	PC	Pe	Zen	M	A-L	A-L	2	
3	Gramm.....60	2745	153	200	20700	8700	S 36x14	S 36x14	Lyc TS	6-3 1/2 x 5 1/2	353.8	36.1	85-2200	L	L	L	G	A	2 1/2	10	4	PC	Pe	Zen	M	A-L	A-L	3
4	Gramm-Bernstein..40	156	176	188	188	8360	S 36x5	DS36x5	Con L4	4-4 1/2 x 5 1/2	32.4	40.0	100-2400	L	L	L	G	A	2 1/2	10	4	PC	Pe	Zen	M	A-L	A-L	4
5	Gramm-Bernstein..50	156	176	188	188	8360	S 36x5	DS36x5	Con B7	4-4 1/2 x 5 1/2	32.4	40.0	100-2400	L	L	L	G	A	2 1/2	10	4	PC	Pe	Zen	M	A-L	A-L	5
6	Hahn.....67H	151	151	151	21200	9700	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	L	H	C	N	2 1/2	10	7	FP	No	On	Str	V	A-L	A-L	6
7	Hahn.....67HL	164	184	184	21200	9100	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	L	H	C	N	2 1/2	10	7	FP	No	On	Str	V	A-L	A-L	7
8	Hug.....C97-6 Whl	Op	Op	Op	31765	7400	P 40x8	DP40x8	Bud DW6	6-3 1/2 x 5 1/2	411	40.8	78-2250	L	G	C	A	2 1/2	9 1/2	4	PC	No	Bu	Str	V	A-L	A-L	8
9	Hug.....C97-6 Whl	Op	Op	Op	31765	7400	P 40x8	DP40x8	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	78-2250	L	G	C	A	2 1/2	9 1/2	4	PC	No	Bu	Str	V	A-L	A-L	9
10	Indiana.....41	172	196	28000	9600	S 36x6	S 36x6	Her G	4-4 1/2 x 5 1/2	407.6	36.1	62-1600	L	G	C	C	2 1/2	10	4	PC	Pe	Zen	M	A-L	A-L	10		
11	Int. Harv'tr HS-104C	160	235	29895	10595	36x6*	S 40x14	Has 152	Her G	4-4 1/2 x 5 1/2	390	36.1	60-1800	L	H	C	C	2 1/2	13 1/2	3	PC	HS	Zen	G	R-Bo	D-R-3	11	
12	Kiebler.....22DD	5400	185	185	22000	10400	S 36x6*	S 40x14*	Con B5	4-4 1/2 x 5 1/2	339.3	36.1	82-2400	L	C	C	C	2 1/2	13	7	FP	No	On	Str	V	A-L	A-L	12
13	La France Republic.35	170	170	170	22000	7500	S 36x6	S 36x14	Wau DU	4-4 1/2 x 5 1/2	32.4	40.0	100-2400	L	L	L	L	10	4	PC	Pe	Ha	V	A-L	A-L	13		
14	Maccar.....G1	186	204	204	22000	8975	S 36x6	DS40x6	Wls RBU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	14	
15	Mack.....AC	4950	168	168	22000	9200	S 36x5	DS40x5	Own AC	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	15	
16	Mack.....AK	5250	174	174	22000	9000	S 36x5	DS36x5	Own AC	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	16	
17	Mack.....AK	5250	174	174	22000	9000	S 36x5	DS36x5	Own AC	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	17	
18	Mack.....EX-7	4405	182	182	22000	6500	B 9.00/20	DS36x5	Own AC	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	18	
19	Moreland.....RD	5400	162	198	19800	8750	S 36x6	DS36x7	Her WXC2	6-4 1/2 x 5 1/2	360.8	40.8	78-2250	L	L	G	C	2 1/2	9 1/2	7	FP	No	On	Str	V	A-L	A-L	19
20	Pierce-Arrow.....RD	5400	162	198	19800	8750	S 36x6	DS36x7	Own RD	4-4 1/2 x 5 1/2	32.4	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	20	
21	Schacht.....67C	164	184	184	21200	9600	P 36x8	DP36x8	Her WXC2	6-4 1/2 x 5 1/2	360.8	40.8	78-2250	L	L	G	C	2 1/2	9 1/2	7	FP	No	On	Str	V	A-L	A-L	21
22	Selden.....67C	164	184	184	21200	9600	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	L	H	C	N	2 1/2	10	7	FP	No	On	Str	V	A-L	A-L	22
23	Service.....100	5830	173	192	23000	8400	S 36x5	S 36x14	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	78-2250	L	G	C	C	2 1/2	9 1/2	4	PC	No	On	Str	V	A-L	A-L	23
24	Sterling EW 23-64KS	174	192	23000	8400	S 36x5	S 36x12	Wau 6KS	Wau 6KS	6-4 1/2 x 5 1/2	358	38.4	71-2000	L	G	C	C	3	13 1/2	7	FP	Wa	Zen	V	A-L	A-L	24	
25	Sterling DC 23-64KS	166	180	23000	8400	S 36x5	S 36x12	Wau 6KS	Wau 6KS	6-4 1/2 x 5 1/2	358	38.4	71-2000	L	G	C	C	3	13 1/2	7	FP	Wa	Zen	V	A-L	A-L	25	
26	Stewart.....31X	4990	165	235	20835	8400	S 36x6	DS36x6	Wau	6-4 1/2 x 5 1/2	462	45.9	100-2000	L	G	C	C	3	12 1/2	7	FP	On	Str	V	A-L	A-L	26	
27	Walter.....FH	7600	Op	Op	24000	9000	P 40x8	DP40x8	Own 6	6-4 1/2 x 5 1/2	549	48.6	100-1800	L	G	C	C	3 1/2	10 1/2	4	PC	On	Str	V	A-L	A-L	27	
28	Whitcomb Six-Wheel	Op	Op	Op	17000	P 38x9	S 38x9	Wls Z	Wls Z	6-4 1/2 x 5 1/2	477	28.9	103-2200	L	C	C	C	2 1/2	10 1/2	4	PC	On	Str	V	A-L	A-L	28	
29	White.....52	5100	174	245	28000	9184	S 36x6	S 40x12	Own GRB	6-4 1/2 x 5 1/2	326.3	28.9	56-1800	L	C	S	2 1/2	11 1/2	3	FP	On	Str	V	A-L	A-L	29		
30	White.....55	4765	174	215	28000	8895	S 36x6*	DS40x6	Own GRB	6-4 1/2 x 5 1/2	326.3	28.9	56-1800	L	C	S	2 1/2	11 1/2	3	FP	On	Str	V	A-L	A-L	30		
5 1/2 Ton and Over																												
31	Amer. LaFrance. 26 1/2	5750	Op	Op	30000	9600	S 36x7	DS40x7	Own 5R	4-4 1/2 x 6	425.2	36.1	50-1200	L	G	C	C	2 1/2	9 1/2	3	PS	On	Zen	V	A-Bo	ABol	31	
32	Amer. LaFrance. U7 1/2	6000	Op	Op	30000	9800	S 36x7	DS40x8	Own 5R	4-4 1/2 x 6	425.2	36.1	50-1200	L	G	C	C	2 1/2	9 1/2	3	PS	On	Zen	V	A-Bo	ABol	32	
33	Brookway.....290	182	212	30000	10740	P 38x7	S 40x14	Con-Broek	Own 5R	4-4 1/2 x 6	425.2	36.1	50-1200	L	G	C	C	2 1/2	9 1/2	3	PS	On	Zen	V	A-Bo	ABol	33	
34	Brookway.....640-6 Whl	212	224	40000	14000	P 38x7	S 36x10	Con-Broek	Own 5R	4-4 1/2 x 6	425.2	36.1	50-1200	L	G	C	C	2 1/2	9 1/2	3	PS	On	Zen	V	A-Bo	ABol	34	
35	Chicago.....70C	169	169	23000	10175	S 36x6	S 36x10	Wau EU	Wau EU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	35	
36	Chicago.....64D	169	169	23000	10175	S 36x6	S 36x10	Wau EU	Wau EU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	36	
37	Chicago.....64D	169	169	23000	10175	S 36x6	S 36x10	Wau EU	Wau EU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	37	
38	Chicago.....64D	169	169	23000	10175	S 36x6	S 36x10	Wau EU	Wau EU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	38	
39	Chicago.....64D	169	169	23000	10175	S 36x6	S 36x10	Wau EU	Wau EU	4-4 1/2 x 5 1/2	40.0	40.0	100-2400	L	L	L	L	10	4	PC	Pe	On	Str	V	A-L	A-L	39	
40	Clinton. 120SM-7 Ton	172	Op	Op	27000	9500	S 36x6	S 40x14	Bud BTU	4-4 1/2 x 5 1/2	510.5	40.8	61-1400	L	G	C	C	2 1/2	9 1/2	3	FP	On	Str	V	A-L	A-L	40	
41	Coleman F-200 7 1/2 Ton	144	148	32000	13750	P 44x10	DP44x10	Sterling	Bud BTU	4-4 1/2 x 5 1/2	510.5	40.8	61-1400	L	G	C	C	2 1/2	9 1/2	3	FP	On	Str	V	A-L	A-L	41	
42	Coleman X-100PS	175	175	29900	9600	S 36x6	S 40x14	Bud BA6	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	83-2000	L	G	C	C	2 1/2	9 1/2	4	PC	On	Str	V	A-L	A-L	42	
43	Commerce.....100 ZB	5830	175	23000	9650	S 36x6	DS40x6	Con 21R	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	112-2400	L	G													

Line Number	Radiator Make	Clutch	Gear Set			Type and No.	Rear Axle			Front Axle			Brakes			Frame			Body Mounting Data			Springs			Line Number				
			Type and Make	Make and Model	Location		No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Make and Model	Final Drive and Type	Drive and Torque	Gear Ratios	Reduc. in High	Reduc. in Low	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle		Width of Frame	Front	Rear	Auxiliary Type
1	Per	D.Ful	Ful H U 16	U 4	No	Blo	WT 12527KW	2F	H 4.00	25.2	Tim 1660	41A	TD	Ros	8 3/4 x 3 1/4 x 1/2	C	198 1/4	141 1/2	41 1/2	44x3	60x4	1/2	1						
2	Own	D.Ful	Ful H	A 8	A 8	Blo 4	Wis 1700	2F	7.33	82.0	Wis 30	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	138	83 3/4	36	46x3	58x3 1/2	1/2	2						
3	Own	D.Ful	Ful H	A 8	A 8	Own	Wis 1700	2F	7.33	82.0	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	138	83 3/4	36	46x3	58x3 1/2	1/2	3						
4	Own	D.Ful	Ful H1	A 8	A 8	Own	Wis 1010F	WF	9.00	96.0	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	4						
5	Own	D.Ful	Ful H1	A 8	A 8	Own	Wis 1010F	WF	9.00	96.0	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	5						
6	Chl	D.B-L	B-L 55	A 7	A 7	Blo	Wis 1500	2F	8.9	53.3	Tim 16710 H	41HV	TD	Ros	7 1/2 x 3 1/4 x 1/2	P	110	112 3/4	34	40x2 1/2	56x3 1/2	1/2	6						
7	Chl	D.B-L	B-L 55	A 7	A 7	Blo	Wis 1500	2F	8.9	53.3	Tim 16710 H	41HV	TD	Ros	7 1/2 x 3 1/4 x 1/2	P	110	112 3/4	34	40x2 1/2	56x3 1/2	1/2	7						
8	You	D.B-L	B-L 51	A 7	A 7	Blo	Wis 1255K	2F	8.9	53.3	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	8						
9	You	B-L	B-L 55	A 7	A 7	Blo	Wis 1257 KW	2F	8.9	53.3	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	9						
10	Own	P.B&B	B-L-60 Max	U 7	No	Spl	Tim 68700SP	WF	10.0	95.0	Shu 610	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	10						
11	Own	P.Own	Own	U 4	No	Spl	Own	Own	10.0	95.0	Eat 74C	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	11						
12	R-T	D.B-L	B-L 60	A 7	A 7	Spl	Tim 6760	WF	10.0	95.0	Tim 1730	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	12						
13	Own	D.Ful	Ful	A 8	A 8	U-M	Tim 6760	WF	10.0	95.0	Tim 1730	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	13						
14	Own	Own	B-L 60	A 7	A 7	Spl	Tim 6760	WF	10.0	95.0	Tim 1730	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	14						
15	Own	P.Own	Own AC	A 4	A 4	Spl	Own AC	CD	10.0	95.0	Own AC	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	15						
16	Own	P.Own	Own AK	A 4	A 4	Spl	Own AK	CD	10.0	95.0	Own AK	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	16						
17	Own	P.Own	Own AK	A 4	A 4	Spl	Own AK	CD	10.0	95.0	Own AK	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	17						
18	Own	P.B-L	B-L 51	A 4	A 4	Det	Tim 65706 H	WF	7.75	85.4	Tim 16710 H	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	14	86	34	39 1/2 x 2 1/2	54x3	1/2	18						
19	Own	D.Own	Own RD	U 4	No	Spl	Own	Own	10.0	95.0	Own RD	OPM	2I	Ros	7 1/2 x 3 1/4 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	19						
20	Own	D.Ful	Ful MG U	U 4	No	Spl	Own	Own	10.0	95.0	Shu 5572	L41HV	893 TD	Ros	8x3x3 1/4	C	139 1/4	107 3/4	31 1/2	40x2 1/2	50x3	1/2	20						
21	Own	D.B-L	B-L	A 7	A 7	Blo	Wis 1500	2F	10.8	10.8	Tim	OPM	2I	Ros	8x3x3 1/4	C	132	84	94 1/4	40x2 1/2	50x3	1/2	21						
22	Own	Own	B-L-60 Max	A 7	A 7	Blo	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	8x3x3 1/4	C	144	87 3/4	36	46x3	58x3 1/2	1/2	22						
23	Hex	D.B-L	B-L 60	A 4	Op	Spl	Tim 66601D	WF	9.5	50.8	Tim 16300	OPM	2I	Ros	7x2x1 1/2	C	158	97	38	48x3	60x3 1/2	1/2	23						
24	Hex	D.B-L	B-L 55	A 4	Op	Spl	Own	Own	9.5	49.1	Tim 15300	OPM	2I	Ros	9x2x1 1/2	C	147	86	34	48x3	54x3	1/2	24						
25	Chl	D.Ful	Ful	A 8	A 8	Spl 3	Tim 65703D	WF	10.0	95.0	Tim 17300	OPM	2I	Ros	9 1/2 x 3 1/4 x 1/2	C	138 1/2	79 3/4	38	44x3	56x3 1/2	1/2	25						
26	Own	Own	Own	A 5	No	Own	Own	Own	10.0	95.0	Own	OPM	2I	Ros	13x3x1 1/2	C	126	96	36	52x4	52x4	1/2	26						
27	Mod	D.Ful	Own	U 4	U	Own	Own	Own	10.0	95.0	Own	OPM	2I	Ros	16x3x1 1/2	C	166 1/2	105 1/2	48	60x3 1/2	60x3 1/2	1/2	27						
28	Own	P.Own	Own GRBA	U 4	U	Own	Own	Own	10.0	95.0	Own	OPM	2I	Ros	16x3x1 1/2	C	166 1/2	105 1/2	48	60x3 1/2	60x3 1/2	1/2	28						
29	Own	P.Own	Own 4B	U 4	U	Spl	Own	Own	10.0	95.0	Own	OPM	2I	Ros	16x3x1 1/2	C	166 1/2	105 1/2	48	60x3 1/2	60x3 1/2	1/2	29						
30	Bus	D.Own	Own 5R	A 4	A 4	Own	Own 5R	WF	10.0	54.4	Own 5R	O2M	2X	Ros	8x3x3 1/4	C	162	99	36	45x3	56x4	1/2	30						
31	Bus	D.Own	Own 5R	A 4	A 4	Own	Own 5R	WF	10.0	54.4	Own 5R	O2M	2X	Ros	8x3x3 1/4	C	162	99	36	45x3	56x4	1/2	31						
32	Lon	D.B-L	B-L 70-7	A 7	No	Spl	Tim 68703D	WF	10.0	95.0	Shu 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	32						
33	Lon	D.B-L	B-L 70	A 7	No	Spl	Tim 68703D	WF	10.0	95.0	Shu 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	33						
34	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	34						
35	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	35						
36	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	36						
37	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	37						
38	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	38						
39	Chl	D.B-L	B-L-60 Max	A 7	A 7	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	39						
40	Own	D.B-L	B-L 70	A 7	No	Spl	Tim 68700DP	WF	9.67	90.9	Tim 678-5	O41A	864 TD	Ros	8x3x3 1/4	P	162	99	36	40x3	54x4	1/2	40						
41	Per	B-L	B-L 714	U 8	A 2	Spl	Wis HD	2D	8.5	180	Wis HD	O21A	288 RI	TD	Ros	10x3 1/4 x 1/2	T	Opt	Opt	38	43 1/2 x 4	55 1/2 x 4	N	41					
42																													
43	Lon	D.Own	B-L-60 Max	A 7	A 7	Blo	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x2 1/2 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	42						
44	Lon	D.B-L	B-L-60 Max	A 7	A 7	Blo	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x2 1/2 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	43						
45	G&O	D.Cov	B-L-60 Max	A 7	No	Spl	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x2 1/2 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	44						
46	G&O	D.Cov	B-L-60 Max	A 7	No	Spl	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x2 1/2 x 1/2	C	144	87 3/4	36	46x3	58x3 1/2	1/2	45						
47	Per	D.B-L	B-L 55&60	U 7	A 3	PeS6	Tim 65000	WF	6.87	93.2	Tim 15000	T41AV	796 TD	Ros	9x3 1/2 x 1/2	P	103	37	46x3	59x5	59.5	N	46						
48	Per	D.B-L	B-L 55&60	U 7	A 3	PeS6	Tim 65000	WF	6.87	93.2	Tim 15000	T41AV	796 TD	Ros	9x3 1/2 x 1/2	P	103	37	46x3	59x5	59.5	N	47						
49	Per	D.B-L	B-L 55&60	U 7	A 3	PeS6	Tim 65000	WF	6.87	93.2	Tim 15000	T41AV	796 TD	Ros	9x3 1/2 x 1/2	P	103	37	46x3	59x5	59.5	N	48						
50	Lon	P.B&B	B-L 60	A 7	No	Spl	Tim 68700DP	WF	10.0	95.0	Tim 17300	OPM	2I	Ros	8 1/2 x 3 1/4 x 1/2	C	213 1/2	147 1/2	41 1/2 x 3	49 1/2 x 4	49 1/2 x 4	N	49						
51	Lon	P.B&B	B-L 60	A 7	No	Spl	Tim 68700DP	WF	10.0	95.0	Tim 17300	OPM	2I	Ros	8 1/2 x 3 1/4 x 1/2	C	213 1/2	147 1/2	41 1/2 x 3	49 1/2 x 4	49 1/2 x 4	N	50						
52	Lon	D.Ful	Ful H U 16	U 8	A 8	BC	Own	IF	8.5	155	Own	O4FXM	336 TX	Woh	8x3x3 1/4	C	177	111	32	54x3	52x4	1/2	51						
53	Lon	D.Ful	Ful H U 16	U 8	A 8	BC	Own	IF	8.5	155	Own	O4FXM	336 TX	Woh	8x3x3 1/4	C	177	111	32	54x3	52x4	1/2	52						
54	Lon	D.Ful	Ful H U 16	U 8	A 8	BC	Own	IF	8.5	155	Own	O4FXM	336 TX	Woh	8x3x3 1/4	C	177	111	32	54x3	52x4	1/2	53						
55	Lon	D.Ful	Ful H U 16	U 8	A 8	BC	Own	IF	8.5	155	Own	O4FXM	336 TX	Woh	8x3x3 1/4	C	177	111	32	54x3	52x4	1/2	54						
56	Per	O.H-S	Own	U 4	Op	Blo 4	Own X	BF	8.9	88.6	Own M	O4FXM	336 TX	Woh	8x3x3 1/4	C	177	111	32	54x3	52x4	1/2	55						
57	Lon	D.Own	B-L-60 Max	A 7	A 7	Pet	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x3x1 1/2	C	180	137	36	42 1/2 x 2 1/2	44x3	1/2	56						
58	Lon	D.Own	B-L-60 Max	A 7	A 7	Pet	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x3x1 1/2	C	180	137	36	42 1/2 x 2 1/2	44x3	1/2	57						
59	Lon	D.Own	B-L-60 Max	A 7	A 7	Pet	Tim 68700DP	WF	10.0	95.0	Tim 16302	OPM	2I	Ros	7x3x1 1/2	C	180	137	36	42 1/2 x 2 1/2	44x3	1/2	58						
60	Lon	D.Own	B-L-60 Max	A 7	A 7	Pet	Tim 68700DP	WF	10.0	95.0																			

Line Number	Make, Model and Capacity	General			Tire Size		Make and Model	Engine										Fuel System	Electrical System		Line Number					
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)		Front	Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make
Gasoline Tractor-Trucks—Cont'd																										
1	Diamond T... 503-2 1/2					5700	P 34x7	DP34x7	Her WXC	6-4x4 1/2	38.4			L					PC	Ha	Zen	V	A-L	A-L	1	
2	Diamond T... 551-2 1/2		132			5300	P 32x6	DP32x6	Her WXC	6-4x4 1/2	38.4			L					PC	Ha	Zen	V	A-L	A-L	2	
3	Diamond T... 602-3 T		150			7300	P 36x8	DP36x8	Her YXC	6-4 1/2 x 5 3/4	45.9			L	L				PC	Ha	Zen	V	A-L	A-L	3	
4	Freeman BAT-144 7T	7050	144			9800	P 38x9	DP38x9	Bud BA6	6-4 1/2 x 5 3/4	411	40.8	83-2100	L	L				PC	Ha	Zen	V	A-L	A-L	4	
5	Freeman GLT-144 7 1/2	6450	144			10500	P 38x9	DP38x9	Bud GL6	6-4 1/2 x 5 3/4	572.5	48.6	114-1900	L	L				PC	Ha	Zen	V	A-L	A-L	5	
6	Gen. Mot. 2216 2 1/2-3	1025	130		14000	2975	P 30x5	DP30x5	Pontiac	6-3 1/2 x 3 3/4	200	326.3	58-3000	L	L				PC	Ha	Zen	V	A-L	A-L	6	
7	Gen. Mot. 2513 2 1/2-3	1385	130			3545	P 32x6	DP32x6	Bulek	6-3 1/2 x 3 3/4	257	528.3	76-2500	L	L				PC	Ha	Zen	V	A-L	A-L	7	
8	Gen. Mot. 3204 3-4 T	1700	141		17000	4645	P 32x6	DP32x6	Bulek	6-3 1/2 x 3 3/4	257	528.3	76-2500	L	L				PC	Ha	Zen	V	A-L	A-L	8	
9	Gen. Mot. 4201 4-5 T	1845	141		19000	4725	P 32x6	DP32x6	Bulek	6-3 1/2 x 3 3/4	257	528.3	76-2500	L	L				PC	Ha	Zen	V	A-L	A-L	9	
10	Gen. Mot. 4404 5-6 1/2	2095	141		23000	5095	P 34x7	DP34x7	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	10	
11	Gen. Mot. 6202 6 1/2-7 1/2	3035	154		28000	6625	P 34x7	DP34x7	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	11	
12	Gen. Mot. 6208 7 1/2-8 1/2	3250	154		30000	6800	P 36x8	DP36x8	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	12	
13	Gen. Mot. 8203 8 1/2-10	3935	155		35000	7350	P 36x8	DP36x8	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	13	
14	Gen. Mot. 8207 10-12T	4070	155		40000	7450	P 38x7	DP38x7	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	14	
15	Gen. Mot. 9003 12-15T	6055	185		50000	9475	P 34x7	DP34x7	Bulek	6-3 1/2 x 3 3/4	331	433.7	94-2500	L	L				PC	Ha	Zen	V	A-L	A-L	15	
16	Gramm... B118 3 Ton	1445	118	174		3875	P 30x5	DP30x5	Lye 4SL	6-3 1/2 x 4 1/2	25.3			L					PC	No	No	M	A-L	A-L	16	
17	Gramm... C122 4 Ton	1845	122	196		4820	P 32x6	DP32x6	Lye TS	6-3 1/2 x 3 3/4	353	336.2	90-2750	L	G	A	2 1/2		PC	No	No	M	A-L	A-L	17	
18	Gramm... D122 5 Ton	2045	122	196		5020	P 32x6	DP32x6	Lye TS	6-3 1/2 x 3 3/4	353	336.2	90-2750	L	G	A	2 1/2		PC	No	No	M	A-L	A-L	18	
19	Gramm... E118 6 Ton	2845	118	196		5200	P 34x7	DP34x7	Lye TS	6-3 1/2 x 3 3/4	353	336.2	90-2750	L	G	A	2 1/2		PC	No	No	M	A-L	A-L	19	
20	Gramm... 45-10 Ton	4045	153	200		7600	S 36x5	S 36x12	Her L	4-4 1/2 x 5 1/2	365	832.4	59		L	G	C	3	3	PC	Pe	Zen	V	A-L	A-L	20
21	Gramm... 45-10 Ton	4045	153	200		7600	S 36x5	S 36x12	Lye TS	6-3 1/2 x 3 3/4	353	336.2	90-2750	L	G	A	2 1/2		PC	Pe	Zen	V	A-L	A-L	21	
22	Gramm... 60 15 Ton	3795	153	200		8700	S 36x6	S 36x14	Her G	4-4 1/2 x 5 1/2	407	636.1	63		L	G	C	3	3	PC	Pe	Zen	V	A-L	A-L	22
23	Gramm... 60 15 Ton	3795	153	200		8700	S 36x6	S 36x14	Lye TS	6-3 1/2 x 3 3/4	353	336.2	90-2750	L	G	A	2 1/2		PC	Pe	Zen	V	A-L	A-L	23	
24	Hug... 486	140				6430	P 34x7	DP34x7	Bud DW6	6-3 1/2 x 3 3/4	331	32.7	73-2200	L	G	C	2 1/2		PC	Bu	Str	E	R-Bo	R-Bo	24	
25	Indiana... 290	146				10750	P 38x7	DP38x7	Con 16H	6-4 1/2 x 5 1/2	54.2			L					PC	Pe	Str	E	R-Bo	R-Bo	25	
26	Int. Harvester... HS-54	130	200			7675	S 36x5	S 36x8	HaS 151	4-4 1/2 x 5 1/2	28.9			L					PC	HS	Zen	G	R-Bo	D-R3	26	
27	Int. Harvester... HS-54C	130	200			7900	S 36x5	S 36x10	HaS 151	4-4 1/2 x 5 1/2	28.9			L					PC	HS	Zen	G	R-Bo	D-R3	27	
28	Int. Harvester... HS-74	144	235			9530	S 36x6	S 40x12	HaS 152	4-4 1/2 x 5 1/2	36.1			L					PC	HS	Zen	G	R-Bo	D-R3	28	
29	Int. Harvester... HS-74C	146	235			9555	S 36x6	S 40x12	HaS 152	4-4 1/2 x 5 1/2	36.1			L					PC	HS	Zen	G	R-Bo	D-R3	29	
30	Int. Harv... HS-104C	146	235			10425	S 36x6	S 40x14	HaS 152	4-4 1/2 x 5 1/2	36.1			L					PC	HS	Zen	G	R-Bo	D-R3	30	
31	Kenworth... NT	6145	137	137		9000	P 36x8	DP36x8	Bud GL-6	6-4 1/2 x 5 1/2	572.5	48.6	114-2200	L	C	C	3	3	4	PC	Bu	Str	V	R-Bo	D-R	31
32	Kleiber... 22DD 6 Whl	5900	192		28000	9400	P 32x6	DP32x6	Con 18R	6-4 1/2 x 5 1/2	339	338.4	82-2400	L	C	C	2 1/2		7	FP	No	Str	V	R-Bo	D-R	32
33	Kleiber... 28DD 6500	201			34000	10060	P 34x7	DP34x7	Con 20R	6-4 1/2 x 5 1/2	411	40.8	89-2400	L	C	C	2 1/2		7	FP	No	Str	V	R-Bo	D-R	33
34	Kleiber... 34DD 7500	210			34000	11900	P 36x8	DP36x8	Con 21R	6-4 1/2 x 5 1/2	427	54.5	100-2600	H	C	C	2 1/2		7	FP	No	Str	V	R-Bo	D-R	34
35	Kleiber... 34DDT 9000	215			34000	13650	P 36x8	DP36x8	Bud GF6	6-4 1/2 x 5 1/2	638	54.1	126-1850	L	G	C	3		4	FP	No	Str	V	R-Bo	D-R	35
36	Mack... AB 5-6 Ton	3400	123			S 36x4	DS36x4	Own AB	4-4 1/2 x 5	28.9				L					PS	On	Str	G	R-Bo	N-E1	36	
37	Mack... AK 7-10 Ton	5150	128			S 34x5	DS36x5	Own AC	4-5x6	40.0				L					PS	On	Str	G	R-Bo	N-E1	37	
38	Mack... AC 7-10 Ton	4950	128			S 34x5	DS36x5	Own AC	4-5x6	40.0				L					PS	On	Str	G	R-Bo	N-E1	38	
39	Mack... AC 11-14 Ton	5500	128			S 34x6	DS36x6	Own AC	4-5x6	40.0				L					PS	On	Str	G	R-Bo	N-E1	39	
40	Mack... AP 15 Ton	9500	147			S 34x7	DS36x7	Own AP	4-5x6	60.0				L					PS	On	Str	G	R-Bo	N-E1	40	
41	Mack... AC 15 Ton	6000	128			S 34x7	DS36x7	Own AC	4-5x6	40.0				L					PS	On	Str	G	R-Bo	N-E1	41	
42	Pierce-Arrow... XB 3750	140	140			6180	S 36x5	S 36x5	Own XB	4-4 1/2 x 5 1/2	25.6			T					FP	On	Str	P	D-R	D-R	42	
43	Pierce-Arrow... RD 5400	133	133			8650	S 36x6	S 36x6	Own RD	4-4 1/2 x 5 1/2	32.4			T					FP	On	Str	P	D-R	D-R	43	
44	Pierce-Arrow... RD 5600	132	132			9340	S 36x6	S 36x7	Own RD	4-4 1/2 x 5 1/2	32.4			T					FP	On	Str	P	D-R	D-R	44	
45	Relay... 40 3240	138				5300	P 36x6	DP36x6	Bud DS-6	6-3 1/2 x 3 3/4	309	631.5	56-2000	L	G	C	2 1/2		4	PC	No	Zen	V	A-L	A-L	45
46	Relay... 60 4480	142				7350	P 36x6	S 36x12	Bud BUS	6-4 1/2 x 5 1/2	386	438.4	73-2000	L	C	C	2 1/2		4	PC	No	Zen	V	A-L	A-L	46
47	Walter... FKD 6200	Op 118				7500	P 38x7	SP38x7	Own 6	6-4 1/2 x 5 1/2	43.3			L					PC	On	Zen	V	Elis	D-R	47	
48	Walter... FND 7600	Op 118				9000	P 40x8	DP40x8	Own 6	6-4 1/2 x 5 1/2	48.6			L					PC	On	Zen	V	Elis	D-R	48	
49	Walter... FHRD 8000	Op 118				10000	P 32x9	DP42x9	Own 6	6-4 1/2 x 5 1/2	48.6			L					PC	On	Zen	V	Elis	D-R	49	
50	White... 52T 4700	130	130		42000	8236	S 36x5	DS40x5	Own GRB	4-4 1/2 x 5 1/2	326	328.9	56-1800	L	G	S	2 1/2	11 1/2	3	FP	On	Zen	V	L-N1	50
51	White... 51A 3875	134	134			6045	S 36x5	S 36x5	Own GRB	4-4 1/2 x 5 1/2	326	328.9	56-1800	L	G	S	2 1/2	11 1/2	3	FP	On	Zen	V	L-N1	51

KEY OF

KEYNOTE

Gross Vehicle Weight—Chassis weight, plus body and cab, plus pay load.

TIRES

B—Balloons
P—Pneumatics standard equipment
DP—Dual pneumatics standard equipment
S—Solids
DS—Dual Solids
°—Pneumatics furnished at extra cost.

ENGINE

Make

Bud—Buda Company.
Con—Continental Motors Corp.
HaS—American Car & Fdy. Co.
Her—Hercules Motor Corp.
Lye—Lycorning Motor Corp.
Wau—Waukesha Motor Co.
Wis—Wisconsin Motor Mfg. Co.

Valve Arrangement

H—In head.
L—"L"—Head.
S—Sleeve.
T—"T"—Head.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut

Oiling System

FP—Pressure to main, connecting rod, camshaft, bearings and piston pins.
PC—Pressure to crankshaft and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.
SP—Circulating with splash

Governor

Bf—Bethlehem Fabricators, Inc.
Bu—Buda
Co—Continental.
Ha—Handy Governor Co.
HS—Amer. Car & Fdy. Co.
KP—Handy Governor Co.
No—Not supplied.
On—Own
Op—Optional.
Pe—Pierce Governor Co.
Si—Simplex (Eisemann Magneto Corp.)
St—Sterling.
Wa—Waukesha.

Radiator

BuS—Bush Mfg. Co.
Chi—Chicago Mfg. Co.
Fed—Feddors Mfg.

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle			Front Axle		Brakes		Frame		Body Mounting Data		Springs			Line Number		
			Type and Make	Make and Model		Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front		Rear	Auxiliary Type
1	G&O	D.Cov	Cov	U	4	Spl	Tim	WF			Shu			Ros							1	
2	G&O	D.Cov	Cov	U	4	Spl	Tim	WF			Shu			Ros							2	
3	G&O	D.Cov	B-L	U	4	Spl	Tim	WF			Shu			Ros							3	
4	Lon	D.Ful	Ful H U16	U	4	A8	BC	Own	I	R 8.53 155	Own	O4FXM	336 TX	Woh	7x3 1/2 x 1 1/2	C	95 1/2	48 1/2	32	54x3	52x4	4
5	Lon	D.Ful	Ful H U16	U	4	A8	BC	Own	I	R 8.53 155	Own	O4FXM	336 TX	Woh	7x3 1/2 x 1 1/2	C	95 1/2	48 1/2	32	54x3	52x4	5
6	Lon	P.Own	Mun	U	4	No	Spl	Tim 5261	2F	H 6.8 34.8	Tim 11710	B4IM	377 TX	Jac	6x2 1/4 x 1 1/2	C	87	48 3/4	34	38x2	50 1/4 x 2 1/2	6
7	Lon	D.	Mun	U	4	No	Spl	Tim 5261	2F	H 6.8 34.8	Tim 11710	B4IM	402 TX	Jac	6 1/2 x 3 1/2 x 1 1/2	C	107	59 3/4	34	38x2 1/2	50x3	7
8	Lon	D.	Mun	U	4	No	Spl	Eat 1617	2F	R 9.45 48.0	Eat 433 F	B4IM	524 TX	Jac	6 1/2 x 3 1/2 x 1 1/2	C	107	59 3/4	34	38x2 1/2	50x3	8
9	Lon	D.	Mun	U	4	No	Spl	Eat 1717	2F	H 5.08 36.2	Eat 433 F	B4IM	524 TX	Jac	6 1/2 x 3 1/2 x 1 1/2	C	107	59 3/4	34	38x2 1/2	50x3	9
10	Lon	D.	Mun	U	4	No	Spl	Eat T44 DR	2F	R 9.45 48.0	Eat 433 F	B4IM	524 TX	Jac	6 1/2 x 3 1/2 x 1 1/2	C	107	59 3/4	34	38x2 1/2	50x3	10
11	Lon	D.	B-L	U	4	No	Spl	Tim 65706	WF	R 10.7 65.9	Eat 527 F	B4IM	687 TX	Jac	9x3 1/2 x 1 1/2	C	125	69 1/2	34	40x3	54x3	11
12	Lon	D.	B-L	U	4	No	Spl	Tim 65706	WF	R 10.7 65.9	Eat 527 F	B4IM	687 TX	Jac	9x3 1/2 x 1 1/2	C	125	69 1/2	34	40x3	54x3	12
13	Lon	D.	Mun	U	4	No	Pet	Tim 66704	WF	R 12.3 101	Eat 527 F	B4IM	795 TX	Jac	9x3 1/2 x 1 1/2	C	125	70 3/4	34	40x3	54x3	13
14	Lon	D.	B-L	U	4	No	Pet	Tim 66704	WF	R 12.3 101	Eat 527 F	B4IM	795 TX	Jac	9x3 1/2 x 1 1/2	C	125	70 3/4	34	40x3	54x3	14
15	Lon	D.	B-L	U	4	No	Pet	Tim 66704	WF	R 12.3 101	Eat 527 F	B4IM	795 TX	Jac	9x3 1/2 x 1 1/2	C	125	70 3/4	34	40x3	54x3	15
16	Per	P.Jon	Cov A-4J	U	4	Blo	Tim 54000	BF			Col 4003			Ros							16	
17	Per	D.Jon	Cov W4J	U	4	Blo	Tim 56000	BF			Col 4003			Ros							17	
18	Per	D.Jon	Cov W4J	U	4	Blo	Wis 4626L	2F			Col 5500			Ros							18	
19	Per	D.Jon	Cov W4J	U	4	Blo	Wis 6617B	2F			Col 5500			Ros							19	
20	Own	D.Ful	Ful H	U	4	Blo	Wis 1450	2F	7.08 79.0	Wis 30				Ros							20	
21	Own	D.Ful	Ful H	U	4	Blo	Wis 1450	2F	7.08 79.0	Wis 30				Ros							21	
22	Own	D.Ful	Ful H	U	4	Blo	Wis 1700	2F	7.33 133	Wis 30				Ros							22	
23	Own	D.Ful	Ful H	U	4	Blo	Wis 1700	2F	7.33 133	Wis 30				Ros							23	
24	You	B-L	B-L 51	U	5	Blo	Wis 8800B	2F	7.85 46.8	Shu 5550				Ros							24	
25	Lon	B-L	B-L 70	U	7	Spl	Tim 68703D	WF			Shu 678-5			Ros							25	
26	Own	P.Own	Own	U	5	Own	Eat 54	2F	6.85 60.5	Eat 54F				Own							26	
27	Own	P.Own	Own	U	5	Own	Own	CD	7.22 63.7	Eat 54F				Own							27	
28	Own	P.Own	Own	U	5	Own	Eat 74	2F	7.85 70.5	Eat 74F				Own							28	
29	Own	P.Own	Own	U	5	Own	Own	CD	8.81 79.1	Eat 74F				Own							29	
30	Own	P.Own	Own	U	5	Own	Own	CD	10.1 90.5	Eat 74F				Own							30	
31	Per	D.B-L	B-L 60	U	7	Spl	Tim 66704D	WF	9.00 81.0	Tim 16700 H				Ros							31	
32	Own	B-L	B-L 55-7	U	7	SPB	Tim SW1004	WF	7.33 99.6	Tim 15703 H				Ros							32	
33	Own	B-L	B-L 60-7	U	7	A7	Spl	Tim SW200TW	WF	7.75 73.6	Tim 16302	T41A	848 TD	Ros	7x3 1/2 x 1 1/2	P	180	Opt	38	44x3	60x4	33
34	Own	B-L	B-L 70-7	U	7	A15	Spl	Tim SW300W	WF	9.23 88.6	Tim 16302	T41A	848 TD	Ros	7x3 1/2 x 1 1/2	P	180	Opt	38	44x3	60x4	34
35	Own	B-L	B-L 70-7	U	7	A15	Spl	Tim SW400W	WF	10.3 98.1	Tim 17300	T41A	848 TD	Ros	8x3 1/2 x 1 1/2	C	204	Opt	38	44x3	60x4	35
36	Own	D.Own	Own AB	U	4	Spl	Own AB	CD	10.5 51.1	Own AB				Own							36	
37	Own	P.Own	Own AK	J	4	Spl	Own AK	CD			Own AK			Own							37	
38	Own	P.Own	Own AC	J	4	Spl	Own AC	CD	9.1 58.0	Own AC				Own							38	
39	Own	P.Own	Own AC	J	4	Spl	Own AC	CD	9.7 62.2	Own AC				Own							39	
40	Own	P.Own	Own AC	J	4	Spl	Own AC	CD			Own AC			Own							40	
41	Own	P.Own	Own AC	J	4	Spl	Own AC	CD	11.5 73.5	Own AC				Own							41	
42	Own	D.Own	Own XB	U	4	Spl	Own XB	WF	9.25 50.2	Own				Own							42	
43	Own	D.Own	Own RD	U	4	Spl	Own RD	WF	7.8 41.5	Own				Own							43	
44	Own	D.Own	Own RF	U	4	Spl	Own RF	WF	10.0 51.9	Own				Own							44	
45	Own	D.B-L	B-L 35	U	5	Blo	Own 30	2F	6.45 34.5	Tim 14704 H				Han							45	
46	Own	D.B-L	B-L 51	U	5	Blo	Own 60	2F	7.88 58.5	Tim 1573 H				Han							46	
47	Own	D.Own	Own	U	5	Own	Own	2D	8.50 85.0	Own				Ros							47	
48	Own	Own	Own	U	5	Own	Own	2D	8.50 85.0	Own				Ros							48	
49	Own	Own	Own	U	5	Own	Own	2D	8.50 85.0	Own				Ros							49	
50	Own	P.Own	Own 4B	U	4	Op	Spl	Own	2F	H 11.7 76.5	Own	OPM	235 2X	Own	8x	I	94 1/2	42 1/2	44x3	51 1/2 x 5	N	50
51	Own	P.Own	Own 4B	U	4	Spl	Own	S 1/2	7.14 46.7	Own				Own							51	

ABBREVIATIONS

Auxiliary, Location and Number of Speeds
 No—Not furnished.
 Op—Optional at extra cost.
 A—Amidships.
 R—Rear of amidships main transmission.
 U—Unit with engine.

UNIVERSAL JOINTS

Blo—Blood Bros. Mach. Co.
 B-C—Blood and Cleveland.
 Cle—Cleveland Steel Prod. Corp.
 Har—Spicer Mfg. Co.
 M.M.—Mechanics Machine Co.
 PeS—Peters and Spicer.
 Pet—Peters.
 P-S—Peters and Sneed.
 S-C—Spicer and Cleveland.
 Spi—Spicer Mfg. Co.
 S-P—Superior Universal Products Co.
 SpB—Spicer and Blood Bros.
 SpP—Spicer and Pick.
 U-M—Universal Machine Co.
 U-P—Universal Products Co.

REAR AXLE

Make

Cla—Clark Equip. Co.
 Col—Columbia Axle Co.
 Con—Continental Axle Co.
 Eat—Eaton Axle Co.
 Sal—Salsbury Axle Co.
 Tim—Timken Det. Axle Co.
 Wis—Wisconsin Axle Co.

Final Drive and Type

B—Bevel.
 C—Chain.
 D—Dead.
 I—Internal Gear.
 2—Double Reduction.
 S—Spiral Bevel.
 W—Worm.
 1/2—Semi-Floating.
 3/4—Three-Quarter Floating.
 F—Full Floating.

Drive and Torque

H—Hotchkiss.
 R—Radius Rods.
 T—Torque Arm.
 U—Torque Tube.
 O—Radius Rods Optional.

FRONT AXLE

Make and Model

Shu—Shuler Axle Co., Inc.
 Cla—Clark Equipment Co.
 Col—Columbia Axle Co.
 Con—Continental Axle Co.
 Eat—Eaton Axle Co.
 Sal—Salsbury Axle Co.
 Tim—Timken Det. Axle Co.
 Wis—Wisconsin Axle Co.

BRAKES

Service Make

B—Bendix.
 BE—Bendix front, Eaton rear.
 BO—Bendix front, Own rear.
 C—Columbia.

K—Clark.

L—Lockheed.
 LO—Lockheed front, Own rear.
 O—Own.
 OE—Own front, Eaton rear.
 OW—Own front, Wisconsin rear.
 S—Steeldraulic.
 T—Timken.
 W—Wisconsin.

Location

2—Two Wheel.
 4—Four Wheel.
 2/4—Two wheel brakes effective on all four wheels through driveshaft.
 F—Driveshaft.
 J—Jackshaft.
 P—Propeller shaft.
 r—Four rear wheels.

Type

I—Internal.
 J—Internal front and external rear.
 X—External.

Auxiliary Operation

A—Air.
 D—Hydraulic and mechanical.
 H—Hydraulic.
 M—Mechanical.
 V—Vacuum.

Hand Location

C—Center of double propeller shaft.
 2—Rear wheels.
 4—Four wheels.
 R—Worm or bevel gear shaft.
 T—Transmission.
 F—Driveshaft.

Type

D—Disk.
 I—Internal.
 X—External.

STEERING GEAR

Make

CAS—Columbus G. & P. Co.
 Gem—Gemmer Mfg. Co.
 Han—Hannum Mfg. Co.
 Jac—Saginaw Steering Gear Div. General Motors Corp.
 Lav—Hannum Mfg. Co.
 Ros—Ross Gear & Tool Co.
 Woh—Wohlrab Gear Co.

FRAME

Dimensions Side Rail Depth, Width of Flange, Thickness of Stock.

Type

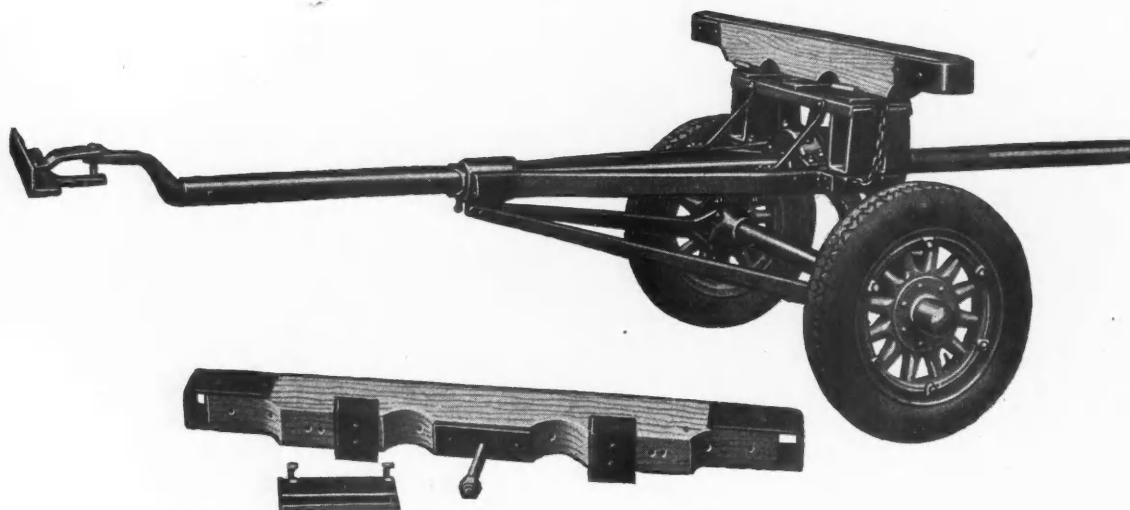
C—Channel.
 I—"I" Beam.
 P—Channel reinforced with plate.
 T—Side rails tapered front and rear.

SPRINGS

Auxiliary Type

1/2—Semi-elliptic about or below main springs.
 1/4—Quarter elliptic.
 C—Coil spring.

Backed by 50 Years of Quality Experience . . .



THIS is one of the many Old Hickory Kingham trailers that are manufactured exclusively by the Kentucky Wagon Manufacturing Company. The quality in design, material, workmanship and performance, is that which has characterized the products of this 32 acre plant for more than 50 years. The prices are right and our terms to dealers are attractive.

The Kentucky Wagon Manufacturing Company have been building Old Hickory Kingham trailers, Kentucky trailers and Old Hickory winches for years and own and control the exclusive rights to manufacture and sell these products. Nor have we ever made these trailers and winches for any one else and the genuine Old Hickory Kingham trailers, Kentucky trailers and Old Hickory winches can only be secured from us.

Full protection will be given by us to all who purchase Old Hickory Kingham trailers, Kentucky trailers and Old Hickory winches from us and we will prosecute any infringements thru the manufacture or sale of these products.

Orders are coming in freely. Mail your inquiries and orders direct to the Kentucky Wagon Manufacturing Company, and not to any individual either at present or formerly in our employ. We want to give you prompt answers and quick delivery. Write today for new literature describing the complete line of Old Hickory Kingham trailers, Kentucky trailers and Old Hickory winches.



KENTUCKY WAGON MANUFACTURING CO.

Incorporated

LOUISVILLE, KENTUCKY

Economic Transportation Necessities Since 1879

POWER

CLARK
EQUIPMENT
TYPIFIES
**POWER
VALUE**



MEN & MAN POWER





CLARK AXLES & WHEELS,

"Man power plus tool power" tells the story of the Clark Equipment Company. An industrious tight knit organization that for many years has specialized in the production of sturdy wheels and axles for cars and trucks—building coordinated running gears for the leading vehicle manufacturers.

Clark power is typified in man power; plus tool power; plus plant power; plus financial power—all pledged to the needs of each customer.

CLARK EQUIPMENT COMPANY
Buchanan, Mich.



TRANSMISSIONS

CLARK



IN THE AUTOMOTIVE vehicle engine power is made effective through the transmission. This power must be delivered from engine through axle to wheel as required. Requirements vary according to road, load and speed. The Clark Equipment Company by reason of its long experience in wheel and axle production is peculiarly qualified to build efficient low cost transmissions. It has the staff, plants, tools and equipment—a coordinated organization seeking transmission problems to solve.

CONSULT US

Transmission Division

CLARK EQUIPMENT CO.

BUCHANAN, MICHIGAN

AN OPEN MESSAGE TO TRUCK MEN WHO HAVE LEARNED THAT THERE IS NO SANTA CLAUS + + +

The best truck is the one that does most work for least money. A Coleman costs more per rated ton in initial investment but pays for itself quicker—lasts longer—works more hours—does more work per hour. A five-ton Coleman has out-pulled a tractor on straight draw-bar test. It has SPEED, too. We will give an actual road test to any bona fide prospective user or dealer, and will make a faster round trip than any highway vehicle of equal capacity carrying an equal load.

STYLE + + +

If you haul flowers or women's clothes, you don't want a Coleman, because no Coleman ever took a beauty prize. The entire power plant overhangs the front wheels—for traction, not style. All four wheels exert equal tractive effort when a Coleman is fully loaded. Every Coleman is tested to carry its rated load up a 50% grade.

"TRADE-INS" +

If you are a User who is more determined about selling an old truck than about making a profit from your truck dollars, we can't help you. We sell Coleman trucks on performance.

We prove that Coleman trucks

pay for themselves in 30 to 60% less time, and that they'll haul from 5 to 15 tons of *anything* at the lowest cost per mile in highway transportation. And THAT is more important to you than a "trade-in" allowance!

PREJUDICE + +

We have met quite a few people who said they would never own a four wheel drive truck. Their prejudice was based upon war-time memories of units which were practically impossible to steer out of a straight line.

With one hand you can steer a Coleman any direction in hub-deep, slippery mud. The steering mechanism is fully patented, and not one installation has ever failed.

MAINTENANCE +

A Coleman owner is never more than 24 hours from any part required. Send for specifications and you'll see that every unit is the best in the field, and carried in stock in every jobbing center in the nation.

"More Than I Need"

For two years you have been reading about amazing Coleman successes. People say: "Yes, it is the greatest truck in the world, but I don't need such remarkable ability."

Don't fool yourself that way! Coleman is just as valuable in doing things other trucks do as it is in doing the jobs they can't do. Just keep your mind fixed upon getting the lowest cost per mile—and you'll get a Coleman.

COLEMAN MOTORS CORPORATION

Main Plant
Littleton, Colorado

Eastern Plant
Washington, D. C.

COLEMAN

FOUR WHEEL DRIVE

POWERFUL and FAST—Built to Last



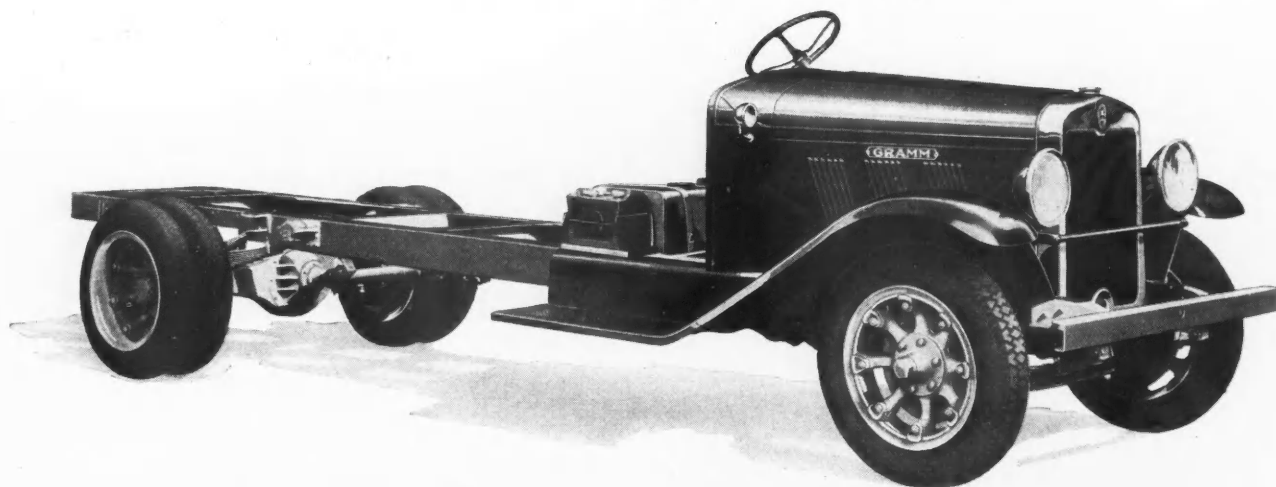
Units That Dealers Can and Do Sell

Four new models in the 1½ to 3 Ton capacities . . . two models in the 4 and 5 Ton field . . . three models especially for van operation . . . and, three models in the bus division—that's the merchandise Gramm Dealers *can* and *do* sell.

Several wheel-base possibilities for each model—that's where Gramm Dealers *can* and *do* sell trucks *to fit your customers' business*. They don't need to make the business fit the truck.

Gramm Vans—yes sir, Chassis and Body complete, built for clockwork schedules and performance—that's where Gramm Dealers *can* and *do* break into the Van Market so well.

Gramm-built units are profit-building units for motor truck dealers. Why not get the Gramm Dealer Plan—you'll find new sales possibilities of real value to live truck merchandisers. Write today, there is no obligation.



Executive Offices and Factory: Delphos, Ohio	GRAMM MOTORS, Inc. <i>Builders of fine Motor Trucks, Vans and Coaches</i>	Truck Capacities 1½ to 5 Ton
--	---	------------------------------------

25% TO 250% MORE MILEAGE!

plus these added savings
that challenge *any* comparison:

- years longer truck life
- lower maintenance cost
- greater load capacity
- increased route coverage
- less slippage
- more traction
- higher sustained speeds
- cool running
- 90% of all high-pressure pneumatic tire troubles *eliminated*

So radical, so startling, so *positive* are the results in every kind of service—from light express to heavy duty dump trucks—we predict that within three years, high-pressure pneumatic equipment will be obsolete in 90% of all truck operation. The tougher the job—the greater the saving! Get a change-over figure from your General Tire dealer today. The General Tire and Rubber Company, Akron, Ohio.

◆ ◆ ◆

The only *complete* line of Truck Balloons . . . including 24-inch wheel sizes. Now you can change-over to balloons without changing wheels!

◆ ◆ ◆

General's complete line of cords, balloons and cushions includes: Jumbo Truck-Balloon; Bus Balloon; Dual-Grip truck cord; Dual Traction dump truck cord; the "Jumbo" Ford and Chevrolet line; Heavy Duty Non-Skid Cushion, high-speed and regular; Air Center Cushion, non-skid and rib-tread; High Smooth Cushion; Standard Cushion; Demountable Cushion; Tractor Cushion.



Consult with your truck manufacturer regarding General Jumbo Truck-Balloons on your next truck.

The GENERAL *Jumbo-Truck-Balloon* —goes a long way to make friends

BIG, RUGGED, RELIABLE TRUCK TIRES... BY THE RECOGNIZED AUTHORITY ..THE WORLD'S LARGEST PRODUCER OF RUBBER !

Whether you operate one truck or a hundred—whether your haulage problems call for solid tires or pneumatics, high pressure or balloons . . . there is one positive source of tire satisfaction—the United States Rubber Company. Not only is this organization the world's largest producer of rubber—not only does it control all of its tire building operations, from plantation to finished product—but it builds so carefully and well that actual cost records of America's leading truck and bus operators prove U. S. Truck Tires serve at a remarkably low cost per mile. Moreover, the far-flung U. S. Dealer organization provides nationwide service for truck operators. Consult your nearest U. S. Dealer today for a sure solution of your truck tire problems.

Write for a copy* of the "U. S. Heavy Service Tire Manual and Changeover Guide"

U.S. RUBBER

**The Big Swing
is to U. S. Tires**



United States Rubber Company, 6600 East Jefferson Avenue, Detroit, Michigan

INTERCHANGE

IN

high
VELOCITY
COOLING

high
VELOCITY
LUBRICATION

high
VELOCITY
COMBUSTION

Cuts Maintenance Costs

Buda Engine Hivelo Series are of high velocity lubrication; high velocity combustion; high velocity cooling . . . with power peaks at 3000 r.p.m. This gives the truck manufacturer a wide choice in the high duty field. Three sizes of "sixes" and two "fours." A high velocity engine for practically every type truck.

And a feature that is to be given very serious consideration in 1930 when maintenance must be kept at a minimum to increase truck sales and to cut the operating and repair expense for the fleet owner is the *interchangeability of parts*. Service is no longer a problem. Far sighted Buda Engineers have caused the "sixes" and the "fours" to have a *wide interchangeability of parts*. This will cut the service time, stock and cost to the very lowest ebb. It means a saving in payload time, in labor, in cost of parts, in factory service and investment.

Marked economies are a di-

rect result of this program of *interchangeable parts*.

Both the two larger "sixes" and the "fours" have a 3" crankshaft *interchangeable*.

Main bearing lengths are identical in both sizes. The "six" has seven main bearings while the "four" has five.

The camshaft bearings are likewise *interchangeable* on the "four" and "six."

Connecting rods and piston pins are *interchangeable* throughout the two "sixes" and three "fours."

The special silchrome alloy steel valves are also *interchangeable*.

Pistons are of equal length and are *interchangeable* between those of the series, both "fours" and "sixes," of equal bore.

And added to this are eighteen features in the new Buda Hivelo series that give you advantages never before offered the Truck manufacturer or operator. Write for further information.

THE BUDA COMPANY, HARVEY, ILL., Chicago Suburb

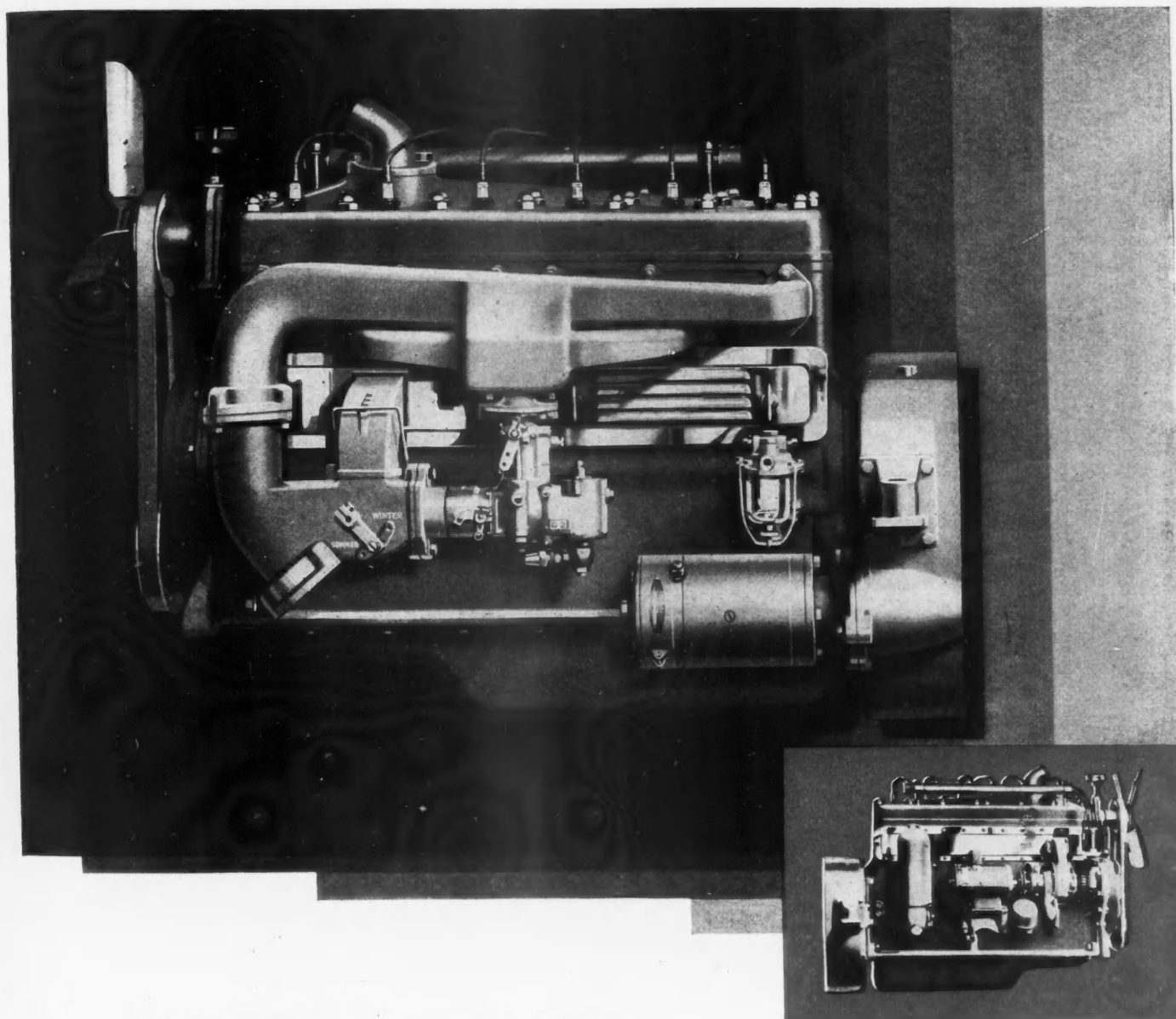
BUDA

ENGINES

"HIVELO" SERIES

ABLE PARTS...

FOURS and SIXES



Get full particulars regarding Buda "Hivelo" Engines. If you have not already received a copy of new bulletin with complete specifications... Ask for it today.

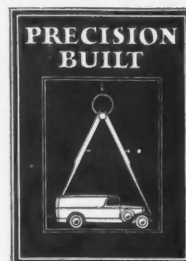
BUDA LEADERSHIP STILL PREVAILS



AUTOCAR

presents The "BLUE-STREAK"
SIX...

Greater rigidity, less vibration, better cooling, positive lubrication. A modern motor for today's increasingly heavy duty. Write for details.

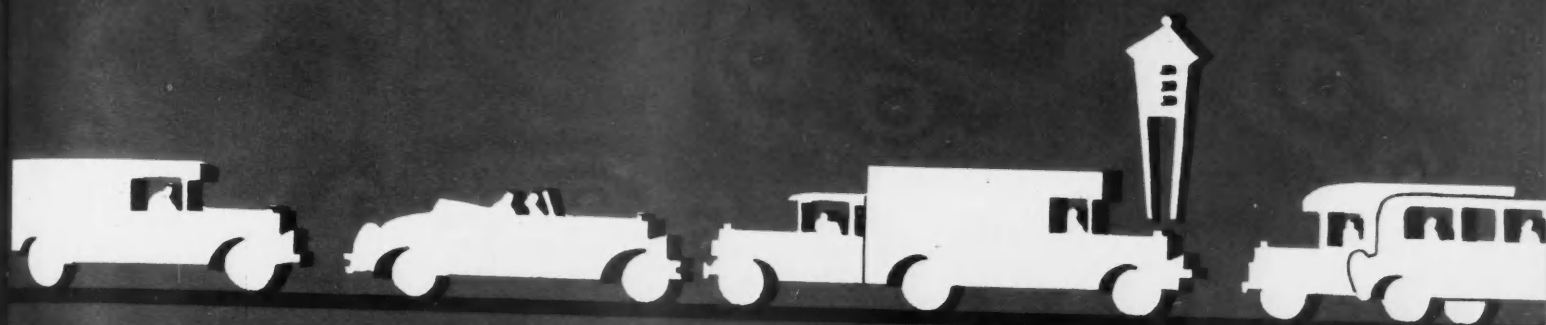


AUTOCAR TRUCKS

The AUTOCAR Company, Ardmore, Pa., Established 1897




EATON EQUIPMENT



AXLES
SPRINGS
BUMPER
EATON-LITES
EASY-ON CAPS
PERFECTION HEATERS

MOTOR Cars and Trucks live longer and have greater eye-appeal with Eaton Equipment built into them. It seems 'most everyone has found this out for well over eighty per cent of them are now coming through with one or more Eaton-made products in their make-up.



EATON AXLES

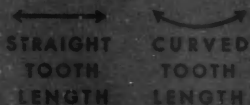
SOME DISTINCT ADVANTAGES IN THE USE OF HERRINGBONE GEARS FOR HEAVY-DUTY AXLES



The Eaton Herringbone Axle is undoubtedly the longest-lasting, most economically operated heavy-duty axle now manufactured. The Spiral Bevel Gear is secured to the shaft which it drives by means of serrations and alloy steel rivets. The entire differential assembly is mounted in a carrier which can be quickly removed. Inspection may be made by removing rear cover.



Chief of the advantages gained by use of Herringbone gears is quietness, not for the lack of noise alone, but for what it indicates. Where there is rasping, grinding, or even humming, wear and tear are also present in a larger degree than when the gear is quiet-running as the Eaton Herringbone Gear is. Note how the teeth form buckets which carry the lubricant from the bottom of the axle.



An advantage of Eaton Herringbone Gears over any other form of gears, is the absolute lack of side thrust. This is due to the opposed angle of the teeth, which centers the thrust force.



Greater tooth surface, giving a greater efficiency, greater torque ability, and an all 'round better performance is a feature of Eaton Herringbone Gears.

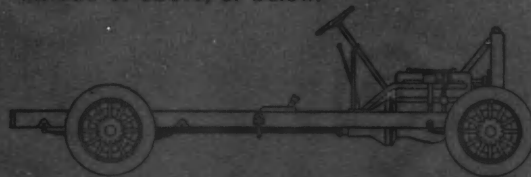


Eaton was the first in this country to employ this type of gear in Truck Axles.

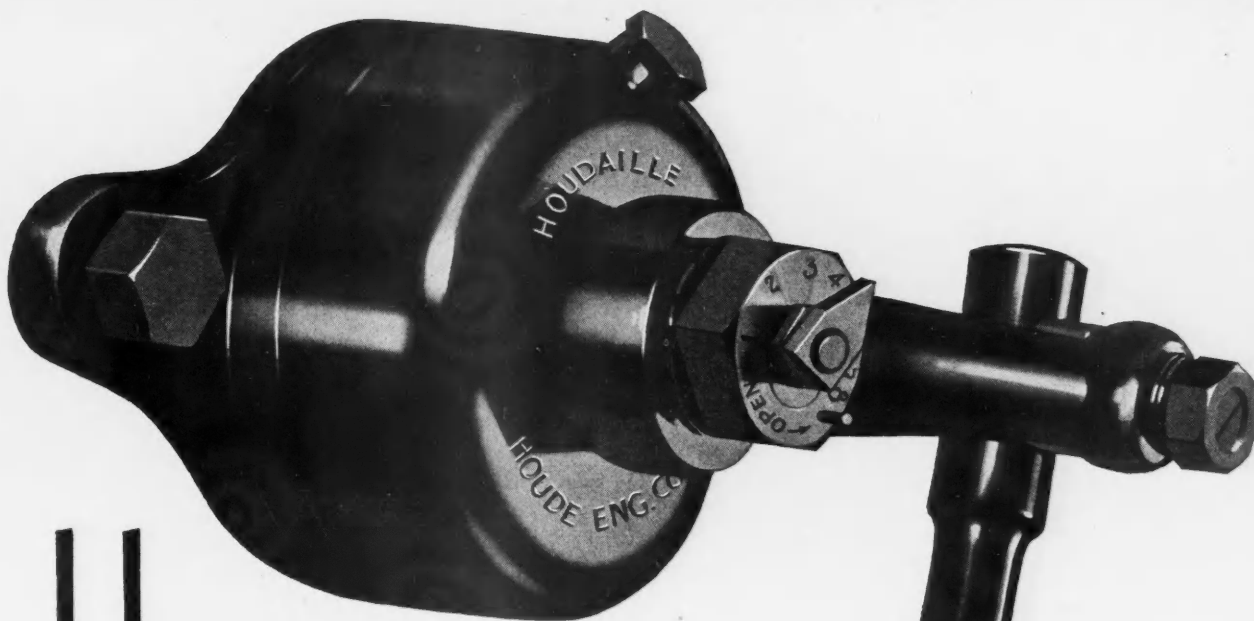
The principle of the Herringbone Gear itself is not new. Practically every ocean liner using steam turbines is equipped with Herringbone reduction gears. Electric street cars have used Herringbone gears for years.

THE EATON AXLE & SPRING COMPANY
CLEVELAND, OHIO

Eaton Herringbone Axles make lower chassis construction possible without sacrifice of ground clearance under axle. It is effected by mounting the pinion in front of the gear instead of above, or below.



for
TRUCKS
and BUSES



HERE'S WHY Houdailles save wear and tear



Hydraulic

—Houdaille control is always in proportion to the severity of each bump. The law of hydraulics plus Houdaille design assures that.

Double Acting

—Chassis springs work both up and down. So do Houdailles. No bouncing loads and broken springs.

Exact Control

—A slight turn of a simple outside nut provides exact adjustment.

Demonstrable Results

—Prove the economy and safety of Houdailles on your own equipment. That is the only real test of economy and safety.

Write for the Houdaille booklet.

Buyers Demand
Economy
and Safety

HOUDAILLE
PRONOUNCED "HOO-DYE"
hydraulic double acting
SHOCK ABSORBER

Houde Engineering Corporation

Buffalo, N.Y.

A DIVISION OF HOUDAILLE-HIERSHEY CORPORATION

PIONEERS AND WORLD'S LARGEST PRODUCERS OF HYDRAULIC DOUBLE ACTING SHOCK ABSORBERS

114 more for Uncle Sam!

AFTER thorough investigations and exhaustive tests of all trucks which might be used, the United States War Department has placed an order with the Four Wheel Drive Auto Company of Clintonville, Wisconsin for 114 more FWD trucks. Ninety of these trucks are of two-ton capacity, and twenty-four are 5-tonners. They will be used for general army service in the United States and its possessions.

The FWD truck has been well known in the army for fifteen years. Large fleets of FWD's operated on the Mexican Border, and 16,000 were purchased by the War Department for service in the Great Conflict.

Throughout these many years of service, the Army has had ample time and opportunity to watch the performance of the FWD. It has been observed that its four-wheel traction and scientific construction throughout enables it to out-perform other trucks. Its ability to travel over poor roads and across country has been a big advantage in army maneuvers.

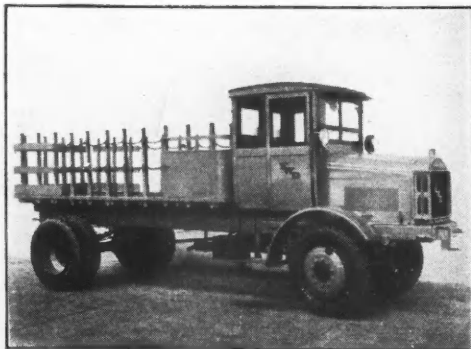
Yet the FWD has never been considered a special duty truck, for it does not generate greater power, but through its four-wheel drive principle, puts more of the power developed to use. It easily handles regular trucking work, and in addition, handles the emergency jobs which are too difficult for the ordinary truck.

The Four Wheel Drive Auto Company plant, which is the largest and oldest four-wheel drive truck factory in the World, has been manufacturing FWD's daily since 1910.

THE FOUR WHEEL DRIVE AUTO COMPANY CLINTONVILLE WISCONSIN

Canadian Factory—KITCHENER, ONTARIO

Demonstration for U. S. Army Officials. The FWD, which is loaded with two tons of iron, climbed this 65-foot bank which has a grade of 65 per cent.



When the United States Army engineers placed the order for that fleet of FWD's, they were satisfied that the trucks would successfully handle the strenuous army work.

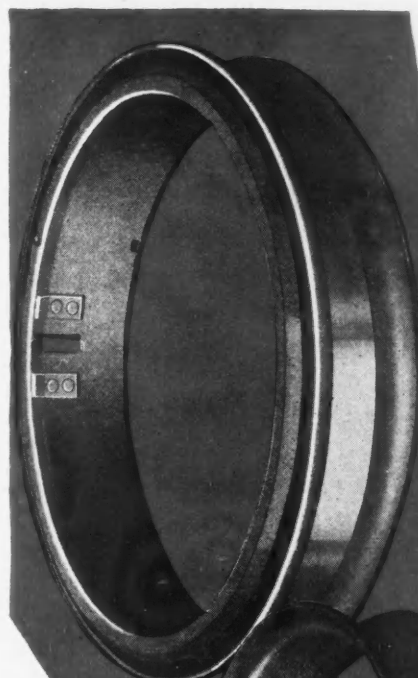
Not only is the U. S. Army buying FWD trucks, but truck operators in many other fields have realized the advantages of the FWD's four-wheel traction and balanced construction. Truck users everywhere are standardizing on the FWD, for they have found that it easily handles their regular work as well as the emergency jobs. The FWD does their work the way they want it done, at surprisingly low cost.

The FWD market is growing fast. Now, more than ever before, it is easier to sell FWD's than to sell against them. FWD dealers are making money. There are still some territories open. Why not write today for full particulars?

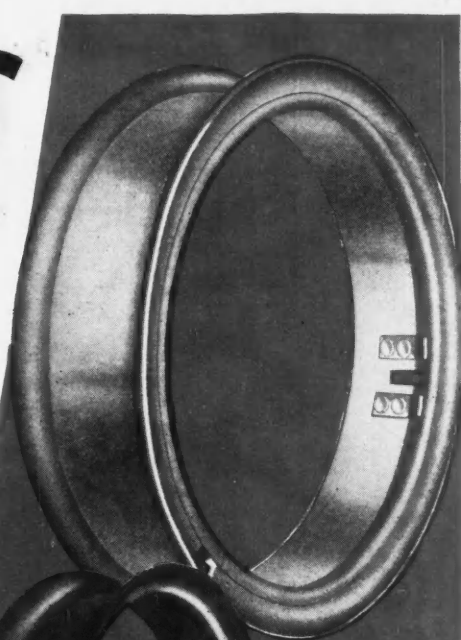
FWD TRUCKS

BACKED BY NATION WIDE SERVICE

RIMS FOR EVERY TYPE OF WHEEL OR SERVICE



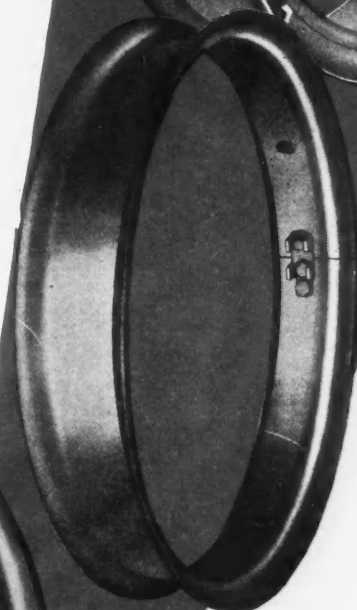
Type BO Rim



Type DTI Rim



Type D Rim



Type N Rim

IT IS AN EASY MATTER to standardize with Firestone Rims for either Passenger Cars or Trucks, whether your wheel specifications call for wood, wire, disc, cast, or steel spoke.

You will find in the complete line of Firestone Rims a type to suit your requirements. Some of the most popular types are illustrated.

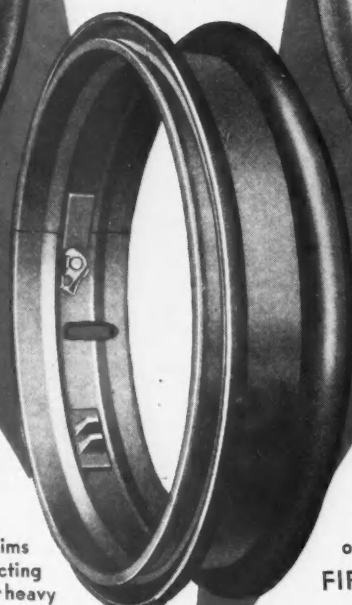
The complete line of Firestone Rims also offers the advantages of selecting the proper rim for light, medium or heavy duty service.

The interchangeable features provide for adapting Heavy Duty or Balloon Tires of required size and spacing to meet every hauling need, most economically. Firestone Engineers are available to assist you in selecting the Rim best adapted to your particular needs.

Write today for further details about Firestone Rims for every type of wheel or service.

**FIRESTONE STEEL PRODUCTS
COMPANY**

Firestone Park : Akron, Ohio



Type O Rim

Firestone

SPECIFY FIRESTONE RIMS FOR EVERY TYPE OF WHEEL—WIRE—WOOD—STEEL

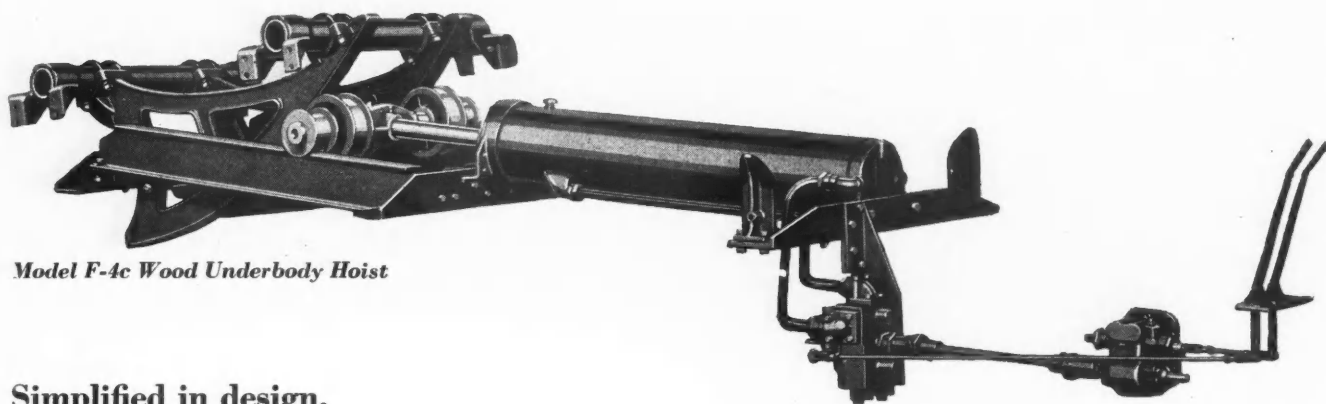
Copyright, 1930—The Firestone Steel Products Co.

*The Commercial Car Journal
and Operation & Maintenance*

April, 1930

BETTER THAN EVER Improved

**7 NEW SLANT TYPE HOIST MODELS
ALL-STEEL CONSTRUCTION AND
EVEN MORE STAMINA!**



Model F-4c Wood Underbody Hoist

Simplified in design.

More compact—Unit Construction.

Slanting position of cylinder gives greater lifting power.

Cylinder supports, front and rear, drop-forged steel.

Lifting force applied to longitudinal

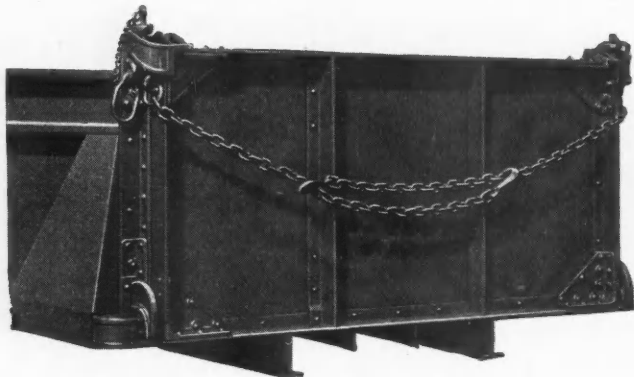
members of body sub-frame—strongest part of body.

Cams mounted on special seamless steel tubular supports.

Tubular supports attached to longitudinal body frame members by pressed steel brackets.

Standardized designs, special machinery, skilled workmen, large production, enable us to give dump truck users maximum value in all-steel dump bodies.

Any chassis equipped with a Wood Hoist and a Wood All-Steel Dump Body is a more efficient dumping unit.



April, 1930

**WOOD HYDRAULIC HOIST
& BODY CO.**

DETROIT

U. S. A.

Branches and Distributors in Principal Cities

**WOOD
HOISTS & BODIES**

*The Commercial Car Journal
and Operation & Maintenance*

DEPENDABLE IGNITION



EISEMANN

EISEMANN MAGNETO CORPORATION, 165 BROADWAY, NEW YORK
 • DETROIT • SAN FRANCISCO • CHICAGO •

SPEED puts heavy responsibility on truck **WHEELS**

Speed means more and heavier loads in less time. Speed means less maintenance cost and more profitable operation of your trucks. But speed can be an expense and a hazard without the proper equipment.

A speeding truck must have a good wheel. A wheel of brute strength to prevent actual bending and breaking under the terrific strains of high speed service. But that is not all. Dual pneumatic wheels must not sway or get out of round in spite of shocks, knocks and impacts. Speed develops brake drum heat that weakens and wears

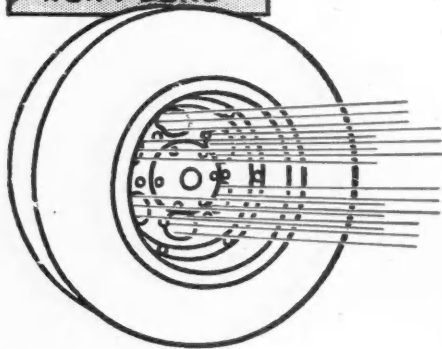
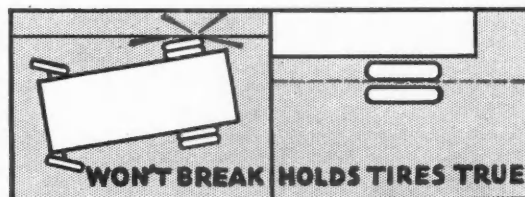
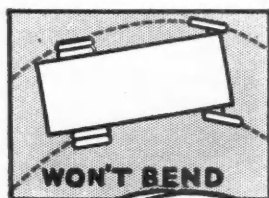
tires quickly if wheels are not cool running.

Dayton Dual Pneumatic Steel Wheels do not bend or weaken or lose their positive true alignment in the fastest and toughest kind of service. Dayton Duals have been proved the coolest running wheels, dissipating brake drum heat and protecting tires and brake linings.

See that you get Dayton Duals when you change over your present equipment, and when you buy that new truck. Dayton Duals will cut your tire and brake lining costs. And you will never spend a cent for wheel repairs. The first cost of a set of Dayton Wheels is the *last* and *only* cost.

You can change over easily from solids to pneumatics with Dayton Duals. Send for valuable information and name of nearest dealer.

THE DAYTON STEEL FOUNDRY COMPANY
DAYTON, OHIO



Dayton

The Mark of a Good Wheel

Pedrick

performance

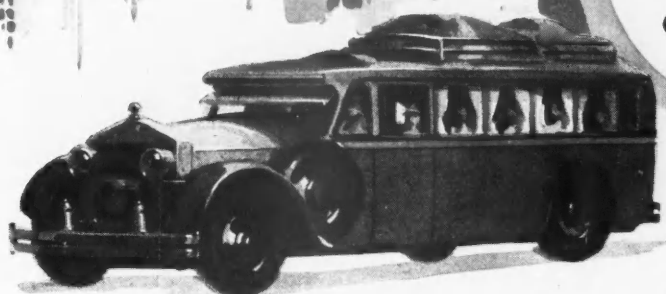
means

1
LESS OIL
CONSUMPTION

2
LOWER MAINTENANCE
COSTS

3
GREATER
POWER

4
INCREASED
PROFITS



BILLIONS of miles—increased millions each year—greater loads—increased speeds. These factors bring ever increasing need to fleet owners for greater efficiency in operation and upkeep.

Only by the most careful regular inspection and timely replacement of worn parts can motors be kept at top performance.

When it is time for new piston rings, remember that PEDRICK Heat-Shaped Oil Control and Compression Rings provide perfect lubrication for the cylinder walls and the perfect seal which prevents oil dilution and holds compression. Heat-Shaping by a special patented process—accurate machining and quality materials account for the performance that is recognized by many of America's foremost engine designers.

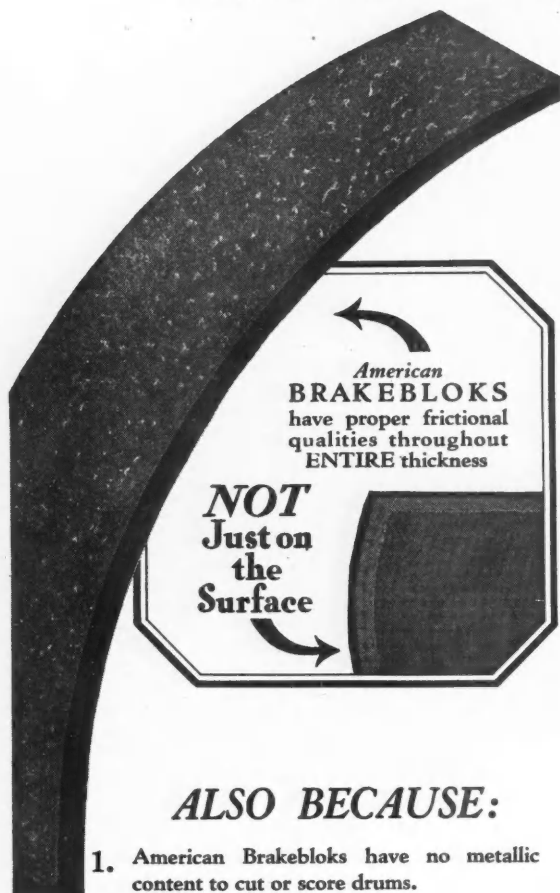
Distributors with complete stocks everywhere.



Wilkening Manufacturing Co.
Philadelphia

American BRAKEBLOKS

Cost Less *per* Stop because:



ALSO BECAUSE:

1. American Brakebloks have no metallic content to cut or score drums.
2. They will not burn or smoke. Heat, even under the most severe braking conditions, will not affect them.
3. They are non-compressible even at many times the highest pedal pressures. This assures a maximum braking area always, uniform wear at all points, and many less adjustments.
4. They will not swell or wedge, and therefore cannot wear off in spots.
5. They recover quickly and completely from the effects of water, oil and grease — a feature which makes them equally efficient under all conditions.

They have the Proper Frictional Qualities throughout their ENTIRE thickness!

American Brakebloks are different—different in formula—different in method of manufacture, different in principle. They are the newest product of one of the oldest firms of braking specialists in America.

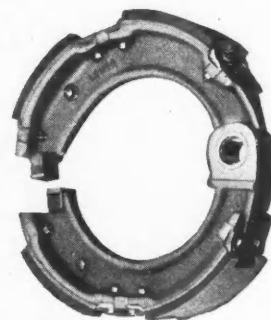
So efficient are American Brakebloks that they are fast replacing other "linings". Already more than 30 manufacturers of buses and trucks have selected them as original equipment for part or all of their production.

Even if the formula of this new material were no better in quality (*as it is!*) American Brakebloks would still be by far the most economical brake surfacing material. For American Brakebloks have the proper frictional qualities—not just on the surface—but throughout their entire thickness.

Long after a laminated surface would be worn off, American Brakebloks still continue to deliver smooth, velvet stops—even when worn wafer thin.

Think what American Brakebloks can do for you! They will cut your brake maintenance costs. They will keep your expensive equipment on the road—working and earning. *They will cut the cost per stop.*

Join the enthusiastic following that have changed to American Brakebloks. Write now to the nearest National Automotive Parts Association distributor for full details.



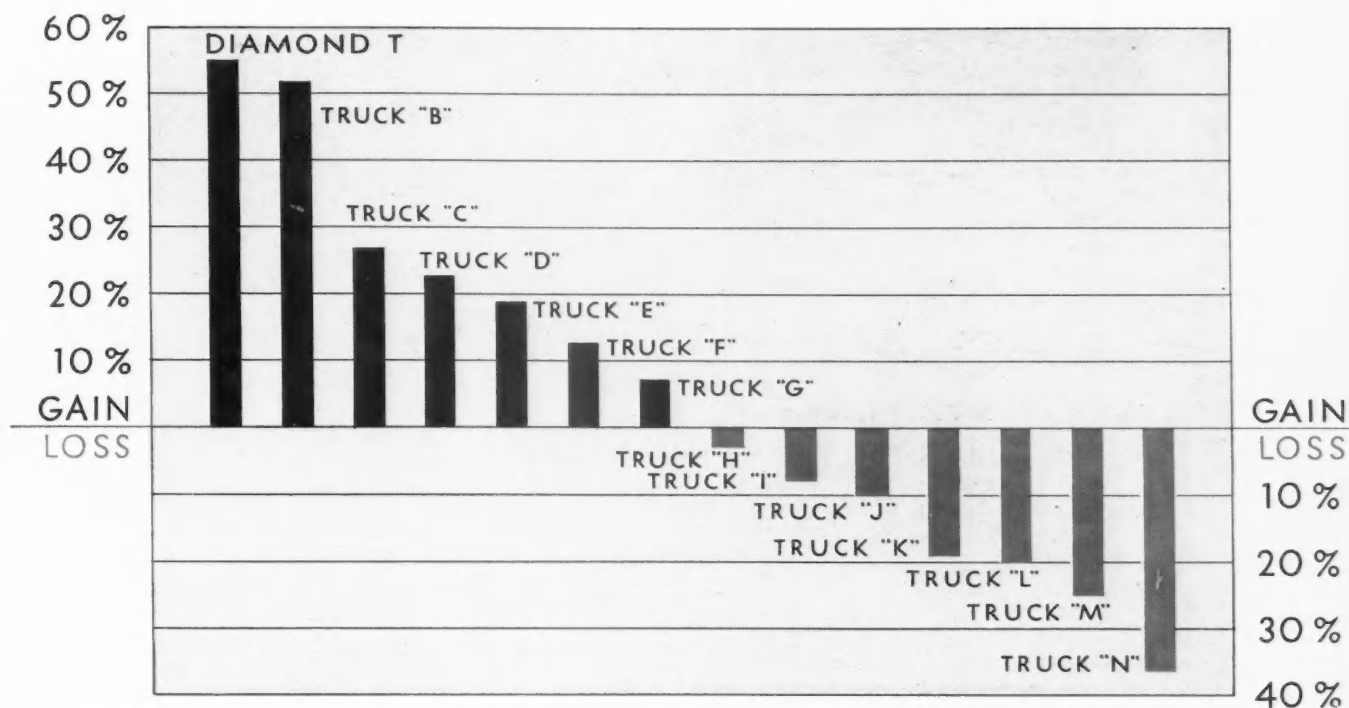
Keeper Type American Brakebloks installed on specially designed brake shoes, for heavy duty buses and trucks.

AMERICAN BRAKE MATERIALS CORPORATION
Industrial and Automotive Division American Brake Shoe & Foundry Co.
4660 Merritt Avenue • Detroit, Michigan, U. S. A.
Sales Offices: Chicago • New York • San Francisco

DIAMOND-T

led the heavy duty truck industry in
1929 with a gain of 55%

in official national new truck registrations



*The chart above is compiled from registration
figures published by The Automotive Daily News*

...and DIAMOND-T
today is moving faster than ever!

BUSINESS IS GOOD with Diamond T and with Diamond T dealers.

The wisdom of Diamond T's revolutionary policy of absolute rock-bottom net prices, has been proved in a spectacular manner. Seasoned truck men declared it couldn't be done, but Diamond T led the entire heavy-duty truck industry in per cent of gains last year, and today is moving faster than ever!



The Diamond-T franchise today offers the biggest opportunity in the motor truck industry

BEVEL DRIVE

1-TON MODEL 200	\$785
1-TON MODEL 215	\$885
1½-TON MODEL 290	\$1475
2-TON MODEL 303	\$1745
2½-TON MODEL 551	\$2250

WORM DRIVE

2½-TON MODEL 503	\$2660
3-TON MODEL 602	\$3440
3½-TON MODEL 700	\$3740
5-TON MODEL 1000	\$4420

WORM DRIVE SIX-WHEELERS

4-TON MODEL 801	\$4140
8-TON MODEL 1600	\$6220
8-TON MODEL 1601	\$7500
10-12-TON MODEL 2500	\$8000

Prices, Chassis at the Factory

TODAY more than ever before, value-per-dollar is what counts most in selling motor trucks. Diamond T offers more value—and more eyesight evidence of it—than any other line of trucks in America.

Truck merchants with years of experience, are turning today to Diamond T, because they know that Diamond T, at drastically lowered prices, is building the finest trucks in its history—the finest in the industry. Naturally such trucks sell more readily, satisfy more thoroughly and require less profit-eating maintenance.

Two new one-ton models at \$785 and \$885, head a complete line which overlooks no profitable field of motor truck sales. Twenty-five years of experience—of steady growth—are your guarantee of happy business relations with Diamond T. Write or wire today for the complete story of the most profitable truck franchise in the industry.

Diamond



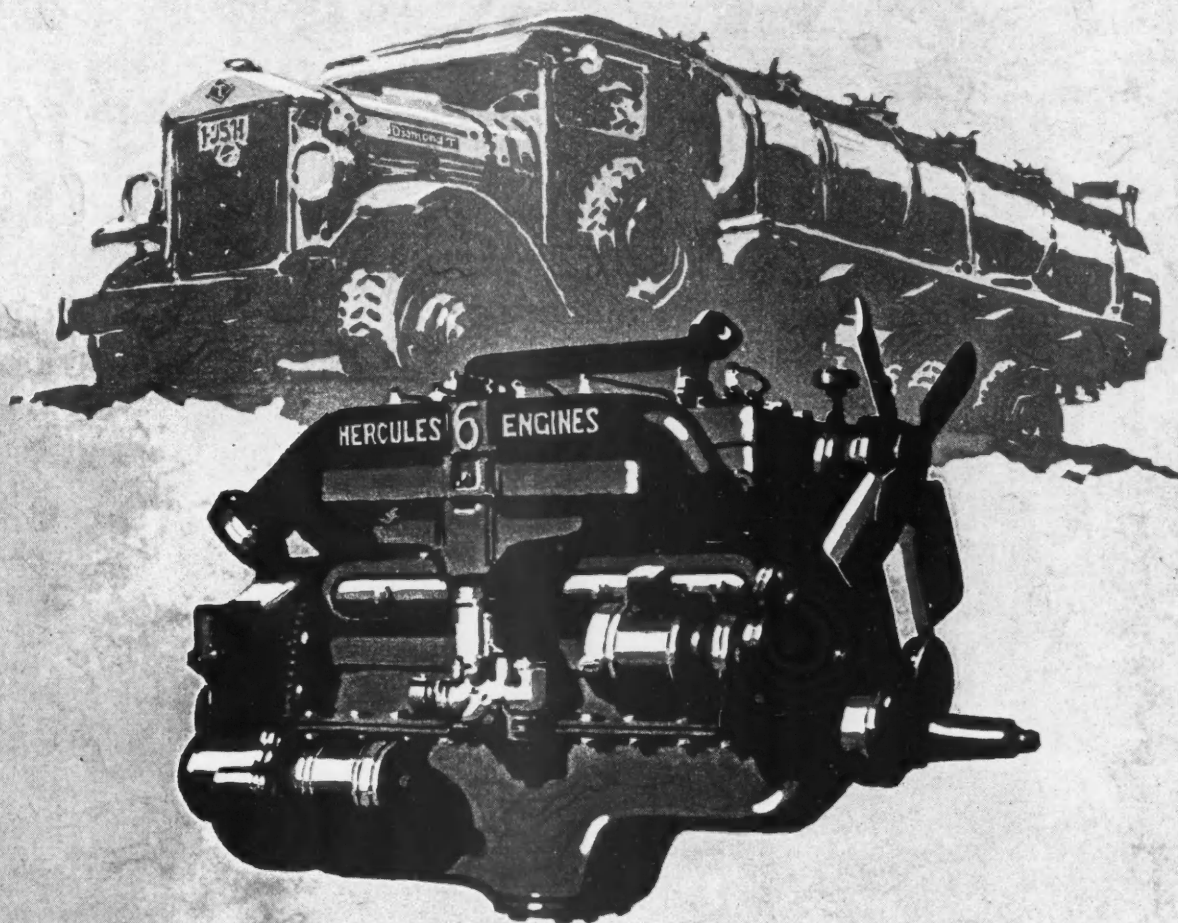
MOTOR CAR COMPANY

C. A. Tilt, President

Factory and General Offices

West Twenty-Sixth Street, Chicago

HERCULES ENGINES



Hercules Engines are simple, compact and rugged. Hercules performance is reliable and economical. Hercules policy includes steadfast responsibility to customers. It is only logical that Hercules Engines should power heavy-duty Diamond T's —and many other leading makes of trucks and buses.

HERCULES MOTORS CORPORATION, CANTON, OHIO, U. S. A.

West Coast Branch: Los Angeles, California

Mid-Continent Branch: Tulsa, Oklahoma



**HOW
TO
MAKE
YOUR
SHOP
MAKE
MONEY**

**UNITED
STATES
ELECTRICAL
TOOL CO.**

MAKE THIS BOOKLET PAY YOU A PROFIT --STARTING NOW!

Every Fleet-Owner
who reads it will find ways to make his
maintenance work more profitable

This thing called "Profit" has two speeds—SLOW coming in and like a meteor going out. Profit is simply the amount of money you **KEEP** out of what you get. And the man who keeps the most is the man who has conquered the maintenance end of his business. In the operating of most fleets, maintenance is the big expense that gobbles profit. And *gobbles* is the right word!

Your maintenance department may be annoying you. In any case, it is more likely to be an annoyance than an actual source of profit. But it *can* be a profit-maker. We want to help you to turn it into such a profit-maker. Our booklet, free, of course, is crammed with facts which will help you to turn the red items into black ones. Send for your copy and read it from cover to cover.



Only 16 pages in the booklet —but many a man has been in business 16 years without learning all that it contains.

The booklet is NOT stuffed with fine phrases about our tools. (Most good mechanics use them already and don't need to be told how good they are.)

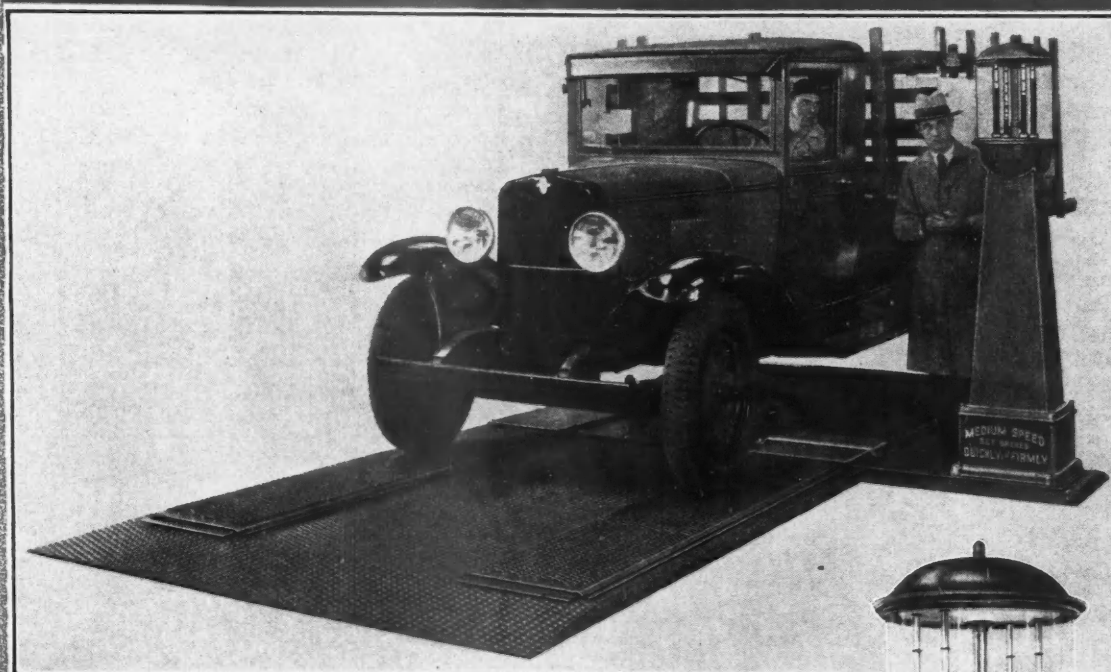


CINCINNATI, OHIO, 2455 W. Sixth St., and Branches in — Atlanta — Boston — Chicago — Cleveland — Dallas — Denver — Detroit — London — Los Angeles — Minneapolis — New York — Philadelphia — Pittsburgh — St. Louis — San Francisco — Seattle — Syracuse — Toronto — Winnipeg
EXPORT REPRESENTATIVES: Westinghouse International Co., 150 Broadway, New York

WEAVER

Automatic

BRAKE TESTER



Instantaneous and Accurate

You are responsible for your drivers and undoubtedly realize the importance of safe brakes.

Here is a Tester that can be installed anywhere in your garage or shop, thus permitting your drivers to test their brakes every day.

It is the speediest Tester on the market, instantly showing the relative braking power of all four brakes simultaneously. It will soon pay for itself in the time it will save.

It is the only machine which accurately tests brakes under actual driving conditions—with the car under its own momentum.

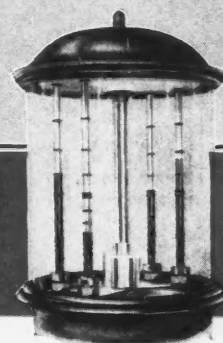
Easily and quickly installed, no expensive excavation necessary.

If you are interested, ask your Jobber Salesman or write us for details.

WEAVER MANUFACTURING COMPANY

Springfield, Illinois, U. S. A.

WEAVER CANADIAN CO., LTD., Chatham, Ontario



Simple in Operation

To test all four brakes merely drive the truck on the Tester and apply the brakes.

The relative braking power of each brake is immediately shown by the rise of the liquid in the gauges, the liquid remaining stationary while the truck is on the Tester.

The gauges, indirectly lighted electrically, are easy to read from any position. As the truck is driven off the Tester, either forward or backward, liquid automatically returns to zero, ready to test next truck.

Shop Equipment for Every Need . . . Brake Service . . . Wheel Alignment . . . Tire Service . . . Headlight Testing . . . Road Service
Motor Overhaul . . . Washing . . . Lubrication

What HAPPENS *when a* Bearing “Lets Go?”



You know the answer—*trouble!* So why not minimize breakdowns, as well as time out for costly periodic overhauls, by using *genuine New Departure Ball Bearings*, purchased through United Motors Service?

So many things may happen when a bearing “lets go”—so much damage to other units may result, and so much productive time may be lost—that operators of truck fleets are coming more and more to rely on genuine New Departure Ball Bearings for every replacement!

They find that with New Departures they can not only *lengthen the time between their periodic overhauls*—an important point in itself—but that under these severe conditions they have far fewer breakdowns and far less replacement expense than with ordinary bearings. They find that genuine New Departures yield *uniformly fine* results.

The result of such superiority quickly shows up on the books in the form of lowered maintenance costs—*higher profit per mile*. Natu-

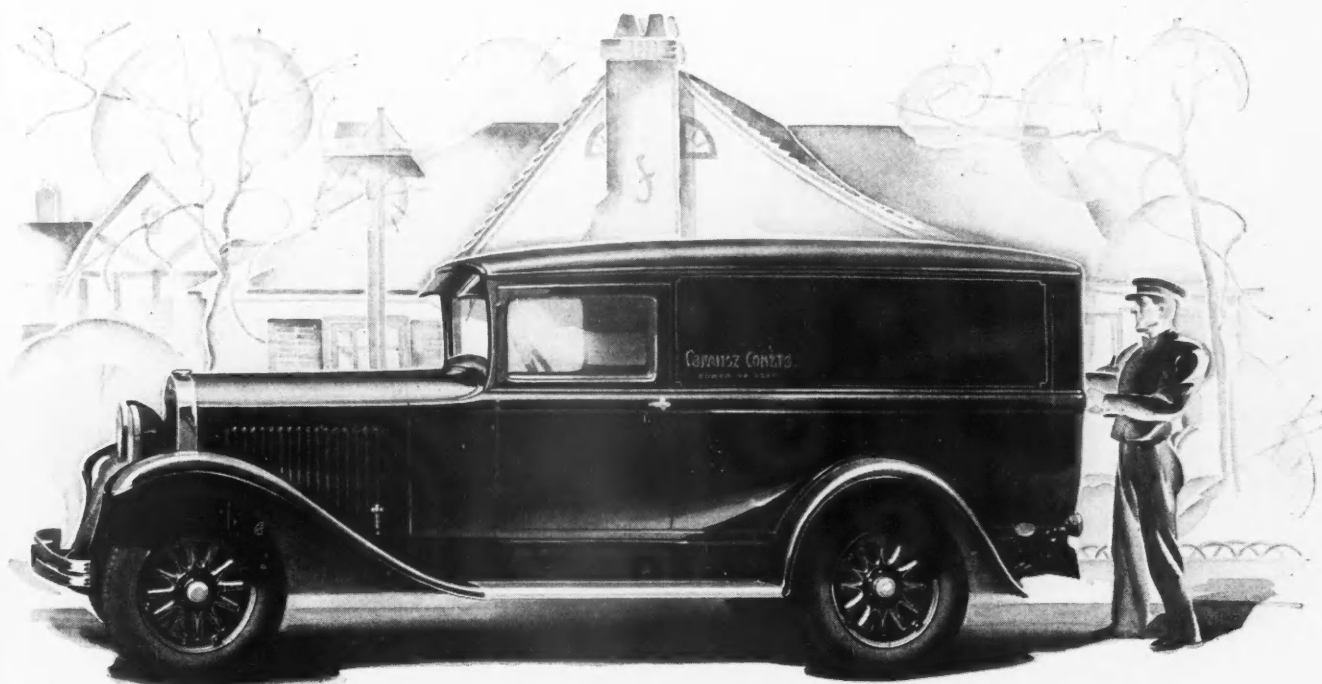
rally, such a showing is winning for New Departures a constantly larger share of the business in the replacement field.

These finer, longer-lived bearings are easy to get, too. They are handled everywhere by Direct Branches and Authorized Bearings Distributors of United Motors Service. For your convenience in locating the nearest supply, we have prepared a handy Service Directory, which we will mail on request. Address the Direct Branch of United Motors in any of the following cities: Atlanta, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Denver, Des Moines, Detroit, Indianapolis, Kansas City, Los Angeles, Memphis, Milwaukee, Minneapolis, New Orleans, New York, Oakland, Omaha, Philadelphia, Pittsburgh, Richmond, San Francisco, St. Louis, Seattle, Toronto.

COSTS LOWERED . . .

DELIVERY SERVICE IMPROVED

. . . PATRONS IMPRESSED



FOR impressing customers with the high character of your business, a Fargo should be your choice. *Chrysler-styled*, its grace of line and custom-built smartness will favorably react to your profit.

For lower hauling costs, select a Fargo. Thousands of business men have proved by actual mile-

by-mile and month-after-month test that these *Chrysler-built* trucks serve at a surprisingly low cost—consistently and long.

For improved delivery service, rely on a Fargo. An hour or a mile behind the wheel will acquaint you with its speed and pick-up, ease of control and riding comfort—

qualities that mean time saved and the morale of your driver bettered.

See the Fargo line of complete trucks. Consider the low price of the type that fits your hauling needs. Let one help lower your costs and increase your business.

PRICES

FARGO ½-TON PACKET—Chassis \$595; Panel \$845; Screen \$845; Canopy \$835; Sedan \$945.

FARGO ¾-TON CLIPPER—Chassis \$725; Panel \$975; Screen \$975; Canopy \$965; Sedan \$1075.

FARGO 1-TON FREIGHTER—Chassis \$795. The complete line of bodies, of outstanding appearance and construction, includes panel, stake, canopy, express and platform.

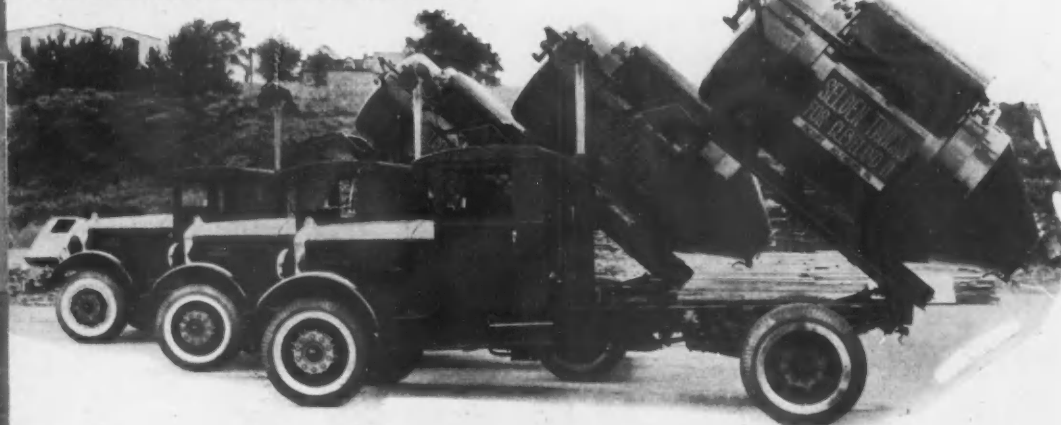
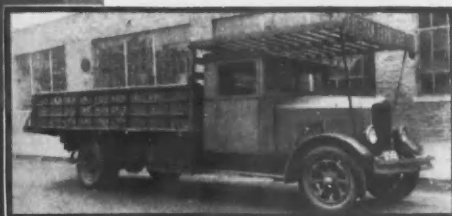
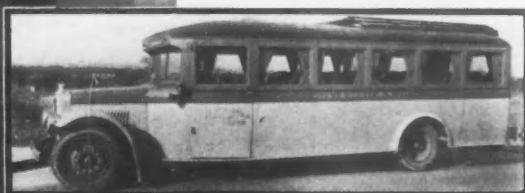
All prices f. o. b. factory. Fargo dealers extend the convenience of time payments.

FARGO

CHRYSLER MOTORS PRODUCT

The Dealer Has the Advantage— ... With Selden-Hahn

All types of special equipment built in our own body shops give the dealer balanced units that make the pay-load pay.



Our ability to fill special equipment needs enables Selden-Hahn Dealers to secure difficult orders with reasonable promptness, and without the handicap of having to hunt around for a source of supply. Building both body and chassis in our own shops we can give our dealers balanced units that will carry the pay-load profitably. Knowing both chassis and body limitations we are able to avoid misfit jobs that jeopardize Dealer and Manufacturer reputations.

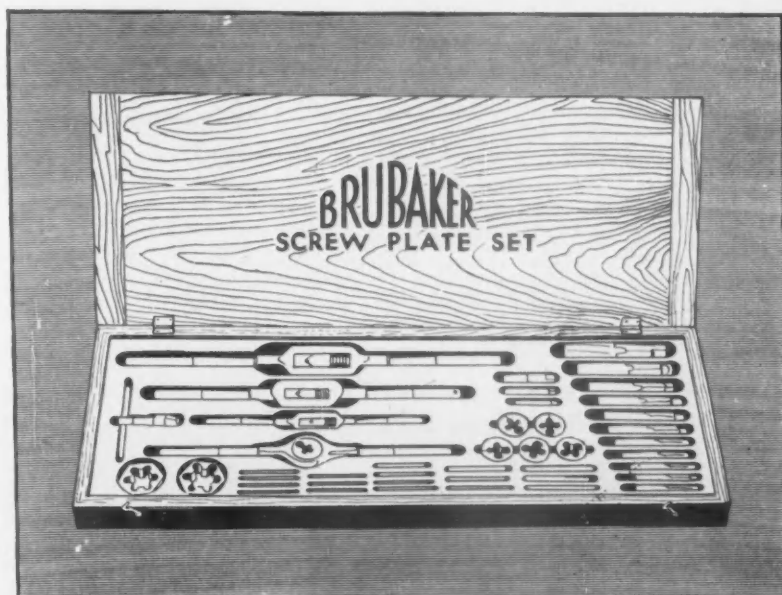
Naturally we manufacture all the so-called standard jobs, but we want to point out particularly that we are close enough to production to make changes to meet specific requirements—and at very little above the price for the more standard units. Inquire about the Selden-Hahn franchise in your territory.

**SELDEN-HAHN
MOTOR TRUCK CORP.**
Allentown, Penna.

Selden



Hahn



SETS CUT COSTS .. SAVE TIME .. MAKE MONEY ..

You often encounter the problem of tool replacement.

There are sufficient reasons why sets of tools are more economical in the truck maintenance department but there is *one extremely important reason why you should buy out of the stock of Brubaker wholesalers.* This automotive jobber not only offers you a line of tools that bear the stamp of quality and manufacturing experience . . . he not only offers you a line of sets and individual cutting tools at fair prices and discounts . . . he offers you service, a word that means more today than it ever has before.

Brubaker cutting tool reconditioning services are being located all over the country. In large cities and small cities the re-sharpening of cutting tools, *the right way*, is being done by jobbers who can fill your needs and requirements for new cutting tools.

W. L. BRUBAKER & BROS. CO.
MILLERSBURG PENNA.



BRUBAKER

When a nice big Gross Profit Shrinks to an uncomfortably Small Net - - - It's the little leaks that do the damage!!

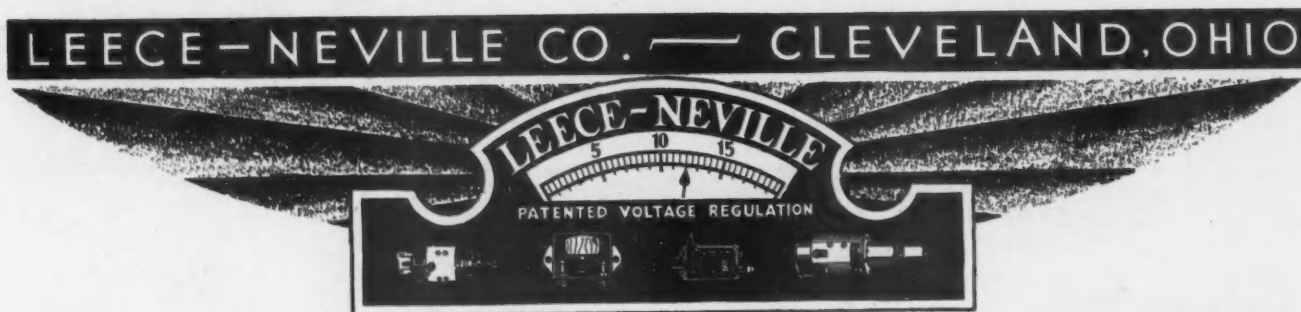
The big leaks in operating trucks and buses never get a good start, because they are plugged tight as soon as they show up. But the little leaks *seem* unimportant, and there's always the fear that it costs more to cure them than it does to endure them.

Failure of the starting and lighting battery is one of the most troublesome and costly of the little leaks that shrink profits.

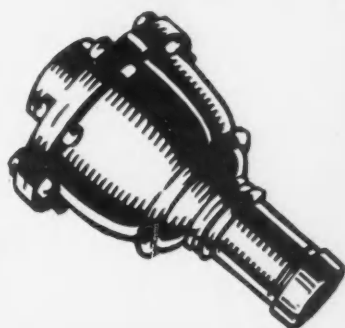
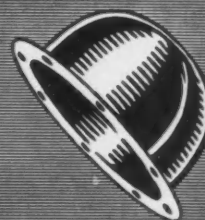
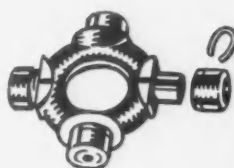
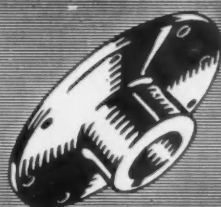
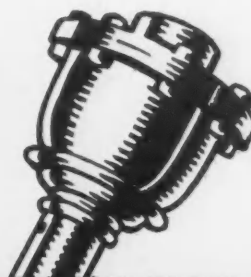
Perhaps you have thought this leak not important enough to take any action about it. So, we would like to tell you the names of experienced and *practical* fleet owners who know from personal test that Leece-Neville Voltage Regulation pays for itself, and then pays a profit. Ask us for proof!

VOLTAGE REGULATION MINIMIZES ELECTRIC MAINTENANCE

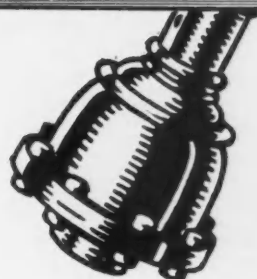
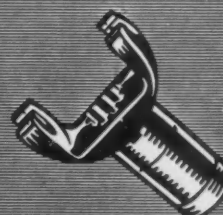
- | | |
|--|--|
| 1 Battery cannot be overcharged. | 7 Makes most economical generator system. |
| 2 The battery is charged only at the correct rate for its state of charge. | 8 Any Leece-Neville Voltage Regulated Generator can be used without battery. |
| 3 Battery will operate longer without requiring replenishing of electrolyte. | 9 Lamp life greatly prolonged. |
| 4 Life of battery greatly prolonged. | 10 Motor coaches fitted with Leece-Neville voltage regulated generators provide passengers with satisfactory illumination and safe transportation. |
| 5 Lights can be operated direct from generator. | |
| 6 Loose connections will not cause lamp bulbs to burn out. | |



GENUINE SPICER PROPELLER SHAFT PARTS



Those who use
genuine Spicer
Joints and Parts
have solved one
problem—for
keeps



ASSOCIATED Spicer COMPANIES

BROWN-LIPE GEAR CO
SYRACUSE, NEW YORK
CLUTCHES-TRANSMISSIONS

SPICER MFG. CORP.
TOLEDO OHIO
UNIVERSAL JOINTS

PARISH PRESSED STEEL CO
READING PENNA.
FRAMES and STAMPINGS

SPICER MFG. CORP.
TOLEDO OHIO
SALISBURY AXLES

INTO THIS LINE IS BUILT UNBEATABLE TRANSPORTATION SERVICE

Nothing less will meet approval
of LaFrance-Republic Executives



LA FRANCE- CORPORATION

(Above) LaFRANCE-REPUBLIC L-1. 18,000 pounds straight rating capacity. Powerful 6-cylinder 90 h. p. truck engine. Sturdy 4-speed transmission, Full-floating, double reduction rear axle, all gears enclosed in continuous oil bath. 4-wheel brakes, internal expanding. Full 7-inch frame, with long, wide springs, 36 x 8 heavy duty cord tires, dual rears.

(Right) LaFRANCE-REPUBLIC C-1. 7,000 pounds straight rating capacity. Husky 6-cylinder, 59 h. p. truck type engine. Heavy, super-strong, 4-speed transmission. Sturdy rear axle. Internal expanding, 4-wheel hydraulic brakes. Deep frame with husky cross members. Over-size springs. 32 x 6 tires—balloon pneumatics in front and heavy duty pneumatics in rear.



Less than a year ago two great names were linked in a merger which united two great truck producing organizations. Leadership was given to men of rich experience, whose only instructions were: "Build a line of trucks to meet every requirement. Build them to new and higher standards of performance. Maintain personalized service of the highest order."

¶ Today the new line includes models to meet all needs. It offers models possessing values even greater than those of their renowned predecessors . . . more speed, more power, more strength, easier handling, greater economy, longer life. And with the new line is a personalized service between makers and dealers, and between dealers and users, seldom attained in any business. ¶ Whether you are a buyer or seller of motor trucks, look first to LaFrance-Republic for modern transportation. Truck users should write for facts about this new complete line. Those interested in a new and highly profitable business opportunity are invited to write for details of the LaFrance-Republic dealer franchise.



REPUBLIC

ALMA, MICH.

THE NEW, COMPLETE LAFRANCE-REPUBLIC LINE

Model A-1. 6,000 lbs. Straight Rating Cap.
Model C-1. 7,000 lbs. Straight Rating Cap.
Model D-1. 9,000 lbs. Straight Rating Cap.

Model F-2. 12,000 lbs. Straight Rating Cap.
Model H-1. 15,000 lbs. Straight Rating Cap.
Model L-1. 18,000 lbs. Straight Rating Cap.
Model M-1. 20,000 lbs. Straight Rating Cap.

The "Chief" 2-2½ tons Capacity
The "Chieftain" 3-4 tons Capacity
The "Big Chief" 5-7½ tons Capacity

BRAKE DRUM QUALITY



HUNT-SPILLER AIR FURNACE GUN IRON

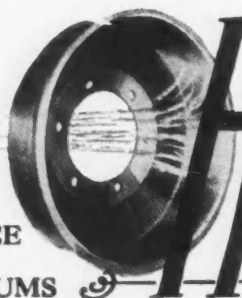
The physical properties of this century-old material, used in making HSGI Drums, resist wear at extremely high temperatures . . . withstand long hours of braking strain . . . maintaining a high coefficient of friction, indefinitely.

Truck and bus fleet owners primarily interested in economical upkeep, recognize the value of these powerful, wear resisting brake drums.

You, too, can benefit by their efficiency.



AIR FURNACE
GUN IRON
for BRAKE DRUMS



HUNT-SPILLER MFG. CORP

J. G. Platt, Pres. and Gen. Mgr.

V. W. Ellet, Vice-Pres.

Office and Works

383 Dorchester Avenue
South Boston, Mass.



New Stewart 1 Ton Truck

The Greatest Dollar for Dollar Value ever offered in Truckdom

The New Stewart 1 ton truck is the sensation of the year in truckdom. Everywhere storms of approval have greeted its appearance, its performance and its long list of outstanding mechanical features formerly found only on costly trucks. Never before has genuine Stewart quality sold at so low a price.

People who said it couldn't be done are admitting that Stewart did it. Not one deviation from the usual Stewart quality yet a price that is unprecedented. The same quality that has long marked Stewarts as "America's

Greatest Truck Value" is embodied in this model. From radiator to tail light an honestly rated truck built by exclusive truck makers entirely of truck parts.

Stewart owners know by experience that the average life of a Stewart is 5 years or more. Ask the Stewart owners in your community the results they are getting. Expect the same performance, the same long life at low operating cost from the new Stewart one ton. You won't be disappointed.

\$695
CHASSIS

MODELS

BEVEL AXLE	WORM AXLE
1 ton 4 Cylinder \$695	2 ton 6 Cylinder \$2290
1 ton 6 Cylinder \$795	2½ ton 6 Cylinder \$2690
1¼ ton 6 Cylinder \$1295	3 ton 6 Cylinder \$3290
1½ ton 6 Cylinder \$1495	3½ ton 6 Cylinder \$3690
2 ton 6 Cylinder \$1695	5 ton 6 Cylinder \$4990
2½ ton 6 Cylinder \$1990	6-7 ton 6 Cylinder \$5700

All prices f.o.b., Buffalo, N. Y.

Stewart
MOTOR TRUCKS

STEWART MOTOR CORPORATION
BUFFALO, N. Y.

Export Branch: 1 Broadway (Dept 3.)
NEW YORK CITY, U. S. A.

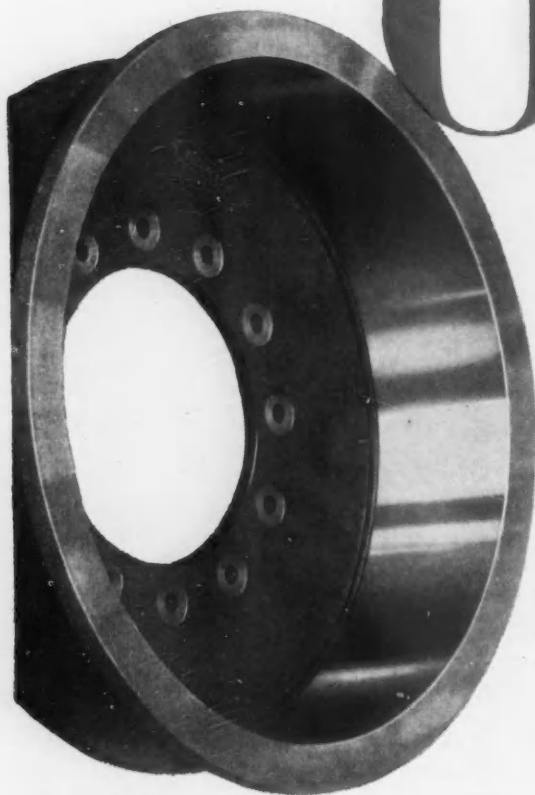
Cables: Stewartruk New York
Codes: Acme, Bentley.

SPECIFICATIONS

ENGINE—Four cylinder truck motor, 3½" bore, 4½" stroke. Six cylinder motor at extra cost.
CARBURETOR—Latest Stromberg with accelerator pump, fuel economizer and air cleaner.
IGNITION—Delco-Remy—engine driven distributor.
GENERATOR—Delco-Remy—direct gear driven also Delco-Remy starter with Bendix gear shift.
TRANSMISSION—4 speeds forward and one reverse. Shafts mounted on annular bearings.
STEERING GEAR—Ross cam and lever type.
FRAME—Pressed steel side rails 6" deep.
REAR SPRINGS—50" long, 2½" wide, bronze bushings, 11 leaves.
REAR AXLE—Truck type, heavy cast housing. Heavy type differential mounted on Timken roller bearings. Strong enough for dual wheel equipment.
BRAKES—Four wheel Bendix.
SPICER DRIVE SHAFT—3" tubular, for standard wheelbase with metal covered, dust proof Spicer joints. Three joint shafts on 140" wheelbase chassis.
WHEELS—Metal. Six spokes, demountable rims.
WHEELBASE—Standard wheelbase 130". Special 120"; at extra cost 140".

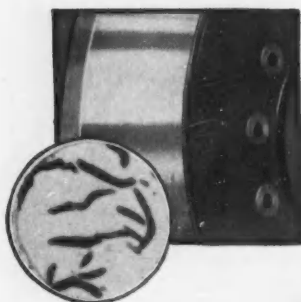
Stewart Trucks have won—By costing less to run

Only Gunitite can assure you these savings in a drum



LONGER WEAR FOR DRUMS AND LININGS

The highly polished braking surface of a Gunitite Drum after miles of service. Longer life for both drum and lining, and brakes that are more positive, efficient and silent.



In the circle, a micro-photograph of the molecular structure of Gunitite magnified 100 diameters, showing the even distribution of the uniform, fat flakes of graphite which give to Gunitite its superior wearing qualities.

The ferrous matrix of Gunitite is essentially the same as tool steel, being lamellar "Pearlite." Pure steel, however, has undesirable features under friction which the short, fat flakes of graphite, evenly distributed in Gunitite, overcome. The "stickiness" is eliminated and drums of Gunitite cannot score, tear or grab other materials. The complete story of this metallurgical development has been made easily understandable and very interesting in a little booklet gladly sent.

**BE
SURE TO
SPECIFY
GUNITITE
BRAKE
DRUMS**



FEWER ADJUSTMENTS

Gunitite Drums are never out of round. As a result, brakes stay in adjustment longer, saving money and labor. Drivers do not complain about slipping, dangerous brakes.



LONGER LINING LIFE

Gunitite Drums never score, pit or groove because Gunitite has flakes of graphite evenly distributed throughout. You get three to five times more service from linings when you use Gunitite Drums.



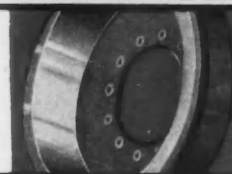
LONGER TIRE LIFE

Smooth braking surfaces mean smooth stops. Less strain is placed on the tires, adding many miles to tire service. Burned spots on your tires are a sure indication of grabbing brakes.



LONGER DRUM LIFE

Because they never score, or distort, Gunitite Drums wear longer. And because of the exclusive characteristics of Gunitite, drums made of it far outlast ordinary pressed or common cast drums.



NEW GUNITITE CATALOG LISTS A DRUM FOR ALL POPULAR TRUCK AND BUS MODELS

Now you can secure a genuine Gunitite Drum for any truck or bus—and be sure you are getting the correct drum. The new Gunitite Catalog lists drums for almost every make and model of truck or bus—a Gunitite Drum which will not score, which will make linings last 3 to 5 times longer, which will never spring out of round . . . the kind of drum from which operators are often getting 200,000 to 300,000 miles of service. Write for your copy today.



THE GUNITITE CORPORATION
Rockford - - - Illinois

GUNITITE BRAKE DRUMS

A-153



Don't let your hauling jobs be a proving ground — — — sell GOTFREDSONS!

The Truck Dealer who enjoys the confidence of his community may reasonably consider his fine standing with his customers as *real* an asset as his *bank balance*! Therefore, the wise dealer is as interested in the *continued fine performance* of the vehicle he sells as he is in the original sale. ¶ That is why GOTFREDSON dealers everywhere rest secure and confident that the hauling jobs of their customers are NOT MERE PROVING GROUNDS for the Motor Trucks they sell. ¶ For, the new and even Greater GOTFREDSONS are

worthy heirs to a reputation that has stood the test of time as no other Motor Truck ever did. In cold, heat, snow or slush, under loads and tests that would have strained the reputations of any less great and powerful vehicles, GOTFREDSONS have always come through smiling. And THERE you have the reason for the fine standing in the community of those dealers who sell GOTFREDSONS. If you are interested write for data regarding territorial sales franchises.

Gottfredson

TRUCKS

THE ROBERT GOTFREDSON
TRUCK COMPANY
3601 Gratiot Ave. Detroit, Mich.





OFF IN LESS THAN 3 MINUTES

TYPE "K" RIMS SAVE TIME ON TIRE CHANGES



The ease with which Goodyear Type "K" Rims are slipped on and off despite rust, dirt, or ice is a big reason for their success. They come off your tires in an instant—THREE MINUTES OR LESS is enough.

Type "K" Rims are light, trim, and cool running. Built in two sections, one split and one endless, they are powerful and yet easy to handle. Your drivers and repair men will like this light and mechanically able equipment.

Change-overs from solid or cushion tires to pneumatics are simple matters with Type "K" Rims. You just cut down your old wheels and weld on single or dual Type "K" felloes. Then, more power, smarter appearance, and less trouble all around.

Write today to Goodyear, Akron, Ohio, or Los Angeles, California for detailed information on sensible Type "K" Rim equipment for trucks or buses.

**"THE MAN WHO CHANGES
THE TIRES LIKES
GOODYEAR TYPE 'K' RIMS"**

GOODYEAR

TYPE "K" TRUCK AND BUS RIM EQUIPMENT

REO *announces*

THE NEW Super-Tonner SPEED WAGON

WITH THE BIG REO CHROME NICKEL ALLOY ENGINE



SUPER in Power, Performance, Long Life and Economy

REO MOTOR CAR COMPANY, world-leader in high-speed, low-upkeep, long-lived commercial transportation, now announces as a new and outstanding development—

The Super-Tonner Speed Wagon

This new thoroughbred addition to the Speed Wagon family is a *Super Speed Wagon* in every sense of the word:

- SUPER**—because it will increase the revenue from your business—
- because it will increase the radius of your profitable business—
- because of its operating economy—
- because of the low depreciation, due to its long life—
- because its big motor gives it more power, more speed, faster acceleration, than is ordinarily found in trucks of nominally the same rated capacity—
- because it provides greater riding comfort for the driver—
- because it gives cushioned passenger-car riding qualities for fragile loads—
- because its springs scientifically combine strength with resilience—
- because of the greater strength of axles, of gears, of springs, of frames and structural parts—

—because it is safer, with the world's best and safest brakes.

The increased speed and agility of this Super-Tonner—comparable only with that of the most modern passenger cars—cuts down time schedules; makes more stops and starts possible in a given space of time; increases your normal radius for reaching and holding new, profitable business—thus increasing your revenues.

As a result of its long life—a Reo characteristic—operating costs and depreciation will be extremely low.*

The Super-Tonner is powered by a big 6-cylinder engine with 268.3 cubic inches of piston displacement—developing 30% to 40% more power than the ordinary one-ton truck is built to stand. It offers 30% greater road speed—15% faster acceleration.

Reo engineers have developed and provided springs for the Super-Tonner that successfully combine strength with resili-

ence. These far stronger, easier-acting springs, combined with big balloon tires in front, give cushioned riding ease for driver and sure protection for fragile loads.

In every part of this Super-Tonner you will find amazing strength. It has 25% stronger rear axles, gears, frames and structural parts than are usually found in a one-ton truck.

The world's greatest brakes, Reo 4-wheel, 2-shoe, internal expanding hydraulics—protect driver, public and load. The Super-Tonner has 25% larger braking area than is customary in one-ton trucks. Its surprising ease of steering also adds to safety.

Opportunity for Dealers

Write for facts on the generous Reo franchise. Reo dealers are enjoying unprecedented sales success with Reo Flying Cloud pleasure cars and Reo Speed Wagons. All inquiries treated confidentially.

REO MOTOR CAR COMPANY, Lansing, Mich.

*Every factor that could possibly contribute to the long life and economical operation of the Speed Wagon Super-Tonner has been included. Chromium nickel alloy iron cylinder block—with seven times the wear-resisting qualities of ordinary close-grained iron; new low expansion aluminum alloy pistons—each outwearing 2 ordinary pistons; 7-bearing crankshaft; full pressure lubrication. Tapered-roller bearings are used in the chassis—for 50% longer life than ordinary bearings. Built-in magazine oilers are a further assurance of long chassis life.

229



SPEED WAGON

VALVE SEAT RENEWING TOOLS



No. 740. Valve Seat Ring Tool Set. NET, complete **\$79.50**



Damaged Valve Seats are no longer a Problem!

THERE'S no worry about doing a good job of renewing destroyed valve seats in shops equipped with a Sioux Valve Seat Ring Tool Set . . . no need to burden the car owner with the cost of a new motor block. An accurately cut recess and a tight drive for the valve seat ring is assured by exclusive Sioux features. The Sioux Expanding Pilot holds the cutter properly centered over the valve seat. The cutter is attached to the shank which rotates around the rigidly anchored pilot. No wobbling or traveling . . . no chance to cut recess oversize. A compensating feature takes care of any unevenness on the cylinder block. Use Sioux Valve Seat Rings, made of special heat-resisting iron alloy—they stand the "gaff".

Your Jobber Sells Them.

ALBERTSON & CO. INC., Sioux City, Iowa, U. S. A.

STANDARD THE



WORLD OVER

« "WE FEEL FREE TO
HEARTILY RECOMMEND
EVEREADY PRESTONE TO ALL
CAR OWNERS" »»»



THE Kansas City Light and Power Company, of Kansas City, Missouri, makes the above statement after a very careful comparison of the cost of Eveready Prestone with other anti-freezes through several months of winter driving.

Two trucks of the same make were used for the test and it was found that at the end of two months of operation the initial investment in Eveready Prestone was still giving perfect protection and had already saved \$1.01 over the cost of the other anti-freeze. Mr. R. J. Collins, Superintendent of Trans-

portation, says of the test: "This figure (\$1.01) will probably increase as the season advances." Eveready Prestone makes all-winter protection extremely simple. Merely flush all scale and rust from a cooling system, go over all water connections and make them tight, then add water and Eveready Prestone, and drive through as much warm or cold weather as you like. Once put a single supply of Eveready Prestone into a *clean, tight* cooling system and a machine is safe.

This anti-freeze is completely different—contains no alcohol or



Eveready Prestone does not contain any alcohol or glycerine.

Eveready Prestone is advertised nationally

This fall, Eveready Prestone will be advertised more forcibly than ever before. In national magazines—*The Saturday Evening Post*, *The Country Gentleman*, *The Literary Digest*, *Collier's*, *Life*, and others. In magazines and newspapers all over the country. And over the radio. The Eveready Hour, radio's oldest commercial feature, is broadcast every Tuesday evening at nine (New York time) from WEAJ over a nation-wide network of 30 stations.



Thoroughly tested and 100% approved by the Contest Board of the American Automobile Association

EVEREADY PRESTONE

FOR PREPARATION OF THE
PERFECT ANTI-FREEZE

glycerine. It possesses *all* the properties pointed out by the National Bureau of Standards as essential for an anti-freeze.

You should be planning right now to order this winter's supply. Write today for information and prices. Get your copy of "Eveready Prestone Service Manual."

NATIONAL CARBON CO., INC.

General Offices
New York, N. Y.

Branches: Chicago, Kansas City,
New York, San Francisco

Unit of **UCC** and Carbon
Union Carbide Corporation

**Nothing *Finer*
Can Be Said of Any
Motor Vehicle Than,
It is -**



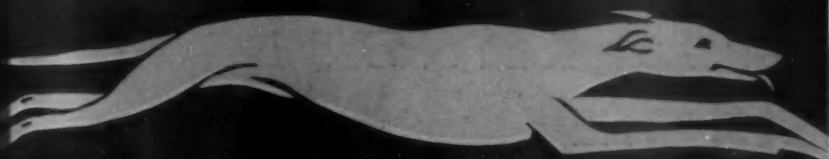
LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

Lycoming's Vast Resources, Experience and Skill Are Dedicated to Leadership in Fine Motor Building

April, 1930

*The Commercial Car Journal
and Operation & Maintenance*



THE SPEED AND FLASH
OF A GREYHOUND

THE BRUTE STRENGTH
OF AN ELEPHANT

THE STAYING-POWER
OF A BULLDOG

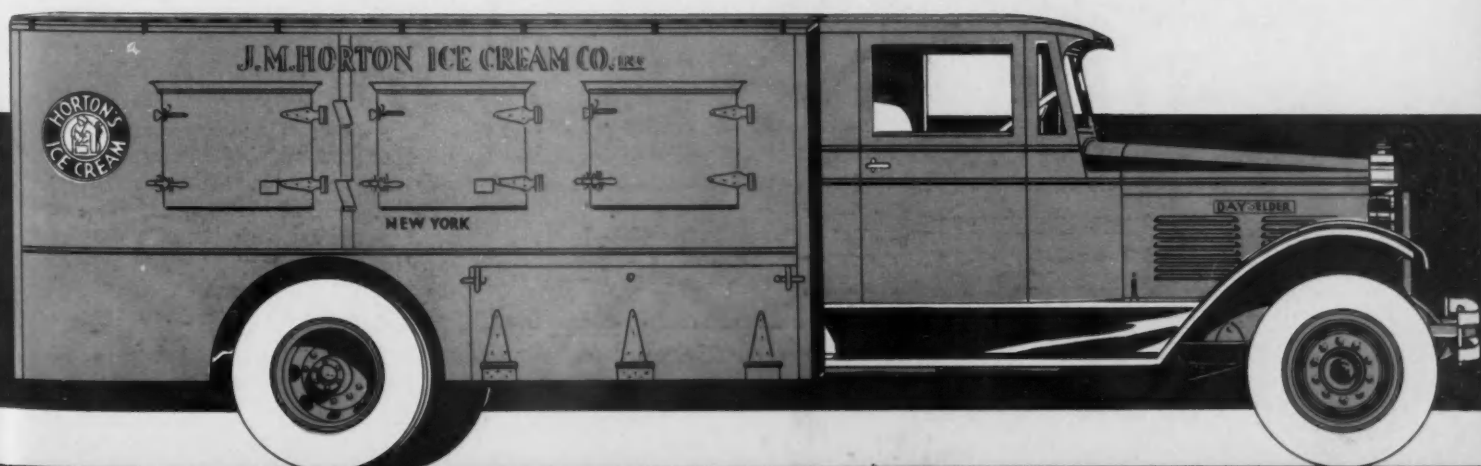
THE APPETITE
OF A CANARY

THE GOOD LOOKS
OF AN ARISTOCRAT



DAY-ELDER

HAS EVERYTHING
INCLUDING PROFIT FOR THE DEALER



PROFIT FOR DEALERS IS THE 1930 KEYNOTE THROUGHOUT THE INDUSTRY BUT — — IT WILL PAY YOU TO REMEMBER THAT DAY-ELDER POLICIES GAVE DEALERS A PROFIT IN YEARS WHEN MOST DEALERS ABSORBED A LOSS

Like every other manufacturer of Trucks, we are always on the alert to secure good dealers. Perhaps we are *more* alert because we know how valuable a GOOD dealer can be. You see, this company is staffed at the executive end by men who individually gained success as dealers, and each and every one of us never loses sight of the fact that no company can build a *permanent* success unless its dealers make a profit. So, we watch TWO things. First of all, we build a truck that's *worth* a profit. Then we sell it through dealers who have sense enough to know that a moderate volume WITH PROFIT is very much better than a big volume without profit.

This year a great many folks are worrying about the dealer. They are saying that THIS YEAR the dealer must be allowed to make a profit. Well, Day-Elder dealers will make their profits *this year—and next year—just as they did in other years.* You see, profit isn't a new thing to Day-Elder dealers.

So, for 1930, we can offer you no magic merchandising methods. We have no fabulous formula for sudden wealth. All we have is a record worth investigating. A record of continuously profitable years for our dealers.

The president of this company is F. T. Macrae. He has no *theories* about how

The Specifications of any Day - Elder unit read like a roster of the automotive world's aristocrats. You can't find a skimmed corner or a pared part in the lot.

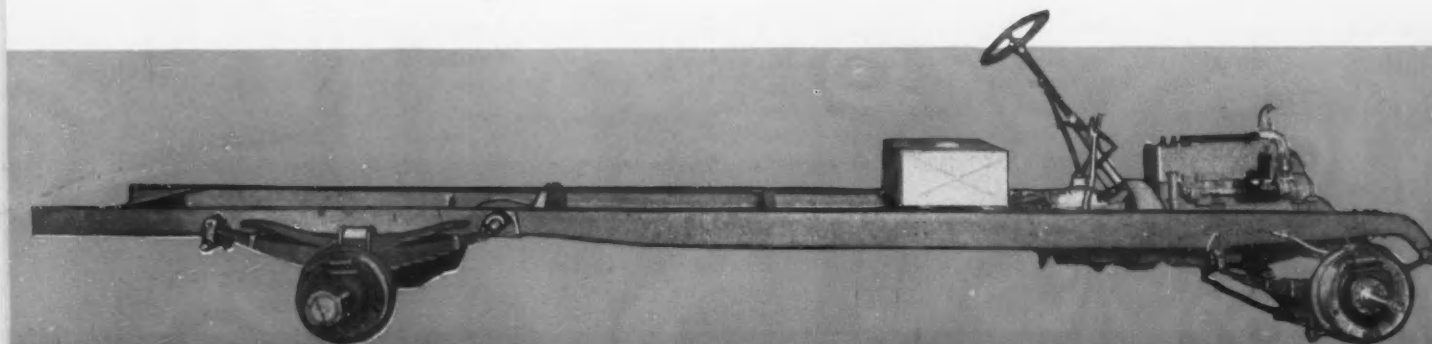
Come to the factory if you can. Write for specifications if you can't come. But *come* if you can! You'll be glad you did.

you can make a profit with Day-Elder Trucks. Everything he knows is based on over 10 years experience as a successful Day-Elder dealer. Mr. Macrae wants to take you through the Day-Elder plant and show you why the truck can command a profit. Then he wants to take you to see some ordinary, run-of-the-lot Day-Elder dealers who will show you that the truck DOES command a profit.

There's no ballyhoo or startling stimulation in that offer—but there is a definite opportunity to show yourself the first step toward the most permanently profitable line-up that's available today or any day.

NATIONAL MOTORS MFG. CO. IRVINGTON NEW JERSEY

EXPORT OFFICE—No. 15 PARK ROW—NEW YORK CITY



A Reliable Jack Will Lift the Heaviest Load With Ease!

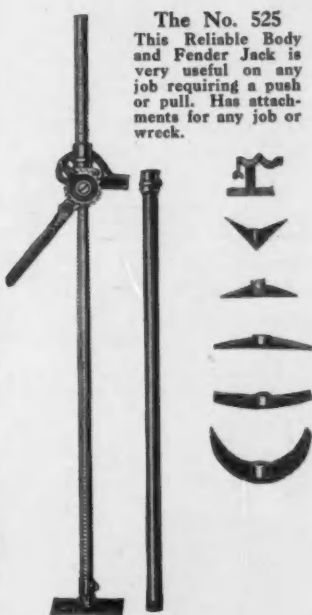
USE a RELIABLE and you can raise any sedan or truck with little effort. RELIABLE Jacks move the heaviest loads safely, quickly and easily. Manufactured since 1902, RELIABLES have always been the choice of particular garage men.

RELIABLE garage equipment is low enough to handle any car, long enough to operate in all positions, and has sufficient raise to remove any tire. Large, illustrated catalog gladly sent on request.



No. 70

The No. 70
The larger No. 70 for trucks has a 7 ton capacity and a 10 inch raise with safety device to prevent overloading.



The No. 525
This Reliable Body and Fender Jack is very useful on any job requiring a push or pull. Has attachments for any job or wreck.



The No. 50
The RELIABLE Hydraulic Heavy Duty Line permits the exceptionally easy handling of tremendous loads. No. 50 for general service use has a capacity of 2½ tons and a 10 inch raise.

The No. 86
The No. 86 is an efficient, low priced roller jack for use around the garage.

We manufacture a complete line of service station equipment including car washers, body and fender tools, tire inspection machine, chain hoists, I-beam trolley, sling chains, wrecking cranes, etc. Sole agents for the famous So Lo Jacks.

All Reliabilities Are Red—
To Avoid Inferior Imitations Look for Trade Mark

RELIABLE BALLOON TIRE JACKS

"Everything That the Name Implies"

ELITE MANUFACTURING COMPANY

110 Ohio St., Ashland, Ohio

Northwestern Branch: G. A. ASHTON CO., 1547 University Ave., St. Paul, Minn. (Complete stock carried in Ashton Bldg.). Southwestern Branch: THE CARROLL CO., 1323 Wall St., Dallas, Texas. (Complete stock carried in Carroll Warehouse). Sales Representatives: RUBEN-MOSS CO., 17 West 60th St., New York, N. Y.; A. E. MOHRIG, 1454 Pine St., San Francisco, Calif.; McEWEN-CHERRY CO., 1110 Nashville Trust Bldg., Nashville, Tenn.; EDWARD L. ALLIS CO., 1249 Boylston St., Boston, Mass.

LAPEER TRAILERS

Open New Markets

The demands of modern business for CHEAPER TRANSPORTATION can only be met through handling larger loads. The equipment required to handle these loads has opened new and profitable fields to the salesmen of modern transportation.

LAPEER Trailers—with their many exclusive features, enable you to best furnish the needs of this ever expanding market and to increase your earnings. You are able to offer prospects a thoroughly developed—quality vehicle—like the quality truck you sell to operate with it.

A roster of Lapeer users tells its own story. Write for it and full data on the Lapeer Line.

LAPEER AUTOMATIC
COUPLING-UNCOUPLING

IS

CHEAPER
QUICKER
SAFER

Manufacturers of Automatic and Manual Semi-Trailers, Four-Wheel Trailers, Pole and Drag Trailers.

**LAPEER
TRAILER
CORPORATION**
LAPEER, MICHIGAN
U . S . A



Keep that
Youthful
Performance
with

QUALITY

BRAND PISTON RINGS

MANY cars and trucks shuffle along the road as though they were looking for a place to "lay down and die"—already in the rocking chair brigade, puffing and gasping for breath.

Not only new piston rings, but Quality Brand rings are needed and you, Mr. Dealer, should see they are supplied. It is a good way to make more friends and more money.

You can furnish just the right type of ring because there is a right Quality Brand for every condition.

Quality Compression—Drainoil Single Slot—Double Slot Drainoil—and the New Sta-Tite (compression and oil) with properly applied inner spring pressure.

More Quality Brand rings are sold for original equipment and replacement than any other make.

The Piston
RING COMPANY
Muskegon, Michigan



... ANN New RUGBY TRUCKS

New RUGBY Mechanical and Structural Features

Products of the able engineers and executives who last year assumed control of Durant Motors, these new and finer Rugby Trucks are designed to cut haulage costs and thereby put larger figures in the profit column of your ledger.

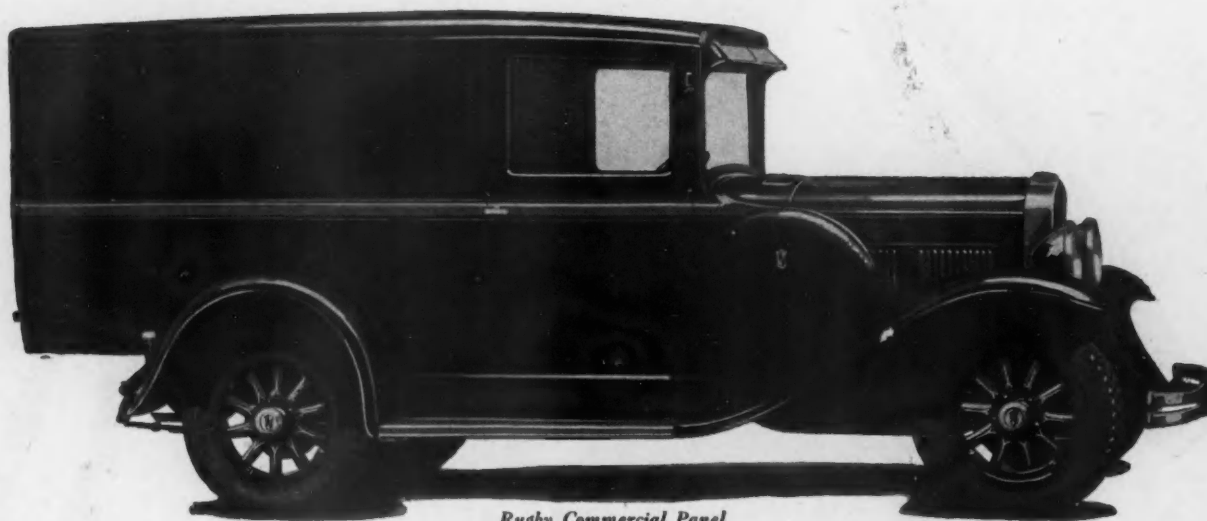
The 6-cylinder engine develops 57 horsepower at 2800 r.p.m. Its rear supports are cushioned in live rubber—a vibration-reducing feature.

Integral with the engine is a specially designed 4-forward speed truck transmission, with direct drive in

high and exceptionally low first-speed gear ratio.

Four steel-fabricated cross members of "box-truss" design—which are in addition to the engine support members—impart unusual rigidity to the Rugby's sturdy frame.

In addition to chassis 6-15 in the 1-ton range, the improved line of Rugby Trucks includes a ½-ton commercial chassis, engineered for efficient, economical transportation in the light delivery field.



Rugby Commercial Panel

RUGBY
A GOOD TRUCK - BUILT BY DURANT

OUNCING BUILT *by* DURANT

Specialized Trucks for Specialized Business

The new Durant-built Rugby Trucks are the products of practical transportation specialists, who have studied every kind of business in which haulage is a factor.

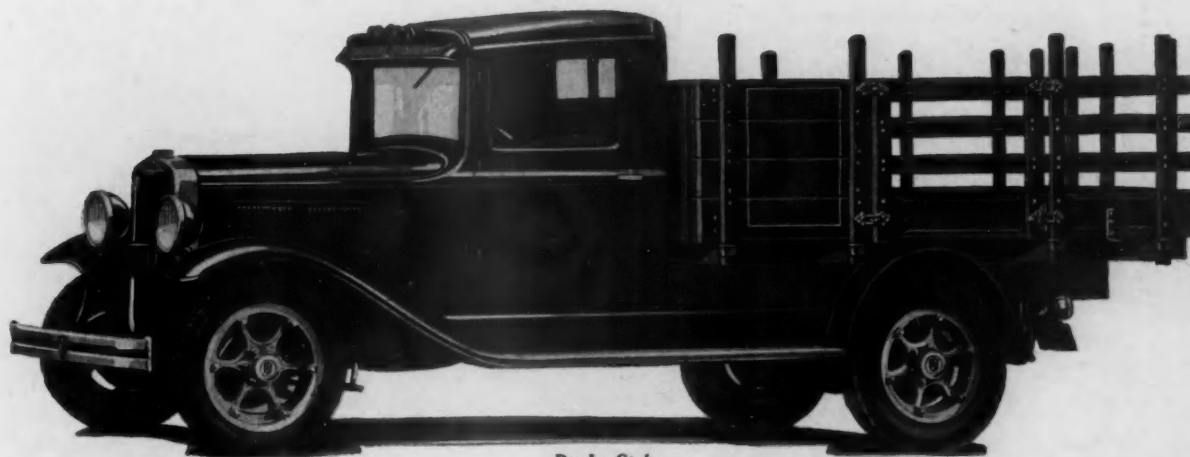
In the new and wider range of Rugby body types there is a body exactly suited to the requirements of *your* business.

Consult the nearest Durant distributor or dealer concerning your haulage problems. Within the 1-ton range, the Rugby 6-15 merits your careful consideration on the basis of appearance, load capacity, power, durability, low maintenance cost, long life, trouble-free operation, driver comfort and safety for both driver and load.

DURANT MOTORS, INC., DETROIT, U. S. A.

FACTORIES—LANSING, MICH., OAKLAND, CAL.

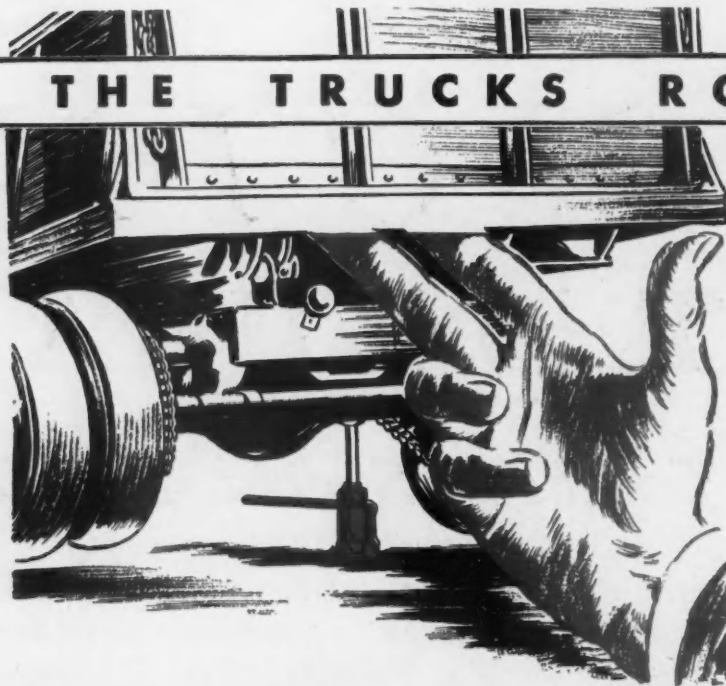
LEASIDE, TORONTO, ONT.



Rugby Stake

R U G B Y
A GOOD TRUCK - BUILT BY DURANT

KEEPS THE TRUCKS ROLLING



Raises Trucks *with* 1-HAND PRESSURE

BLACKHAWK hydraulic efficiency multiplies mere finger pressure into tons of lifting power. Up goes the truck, load and all, at the touch of a hand to the long, easy-swinging Blackhawk jack handle. Lowering is automatic.

Load trucks to their limit. Get full tonnage. Get full tire mileage. What of a puncture now and then? With a Blackhawk along, lifting and lowering are so quick and easy that each truck gets more work done per day.

Back-breaking mechanical jacks are too slow and bothersome for the leviathans of commercial hauling these days. The time their use wastes soon pays for a fast Blackhawk Hydraulic — the jack of long, trouble-free service.

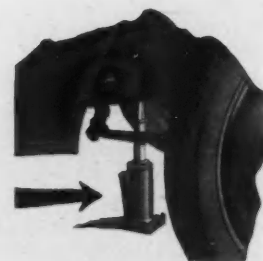
Keep the trucks rolling and the drivers satisfied. Equip with the jacks that are standard on leading heavy trucks and truck fleets — equip with Blackhawk Hydraulics.

See your jack dealer. Mail the coupon to us.

BLACKHAWK MANUFACTURING CO., Milwaukee, Wis.
Also world's largest manufacturer of socket wrenches.



There's a Blackhawk for every need—1 to 75 tons capacity—for automotive, shop, construction, and industrial work.



There's work for Blackhawk Jacks all over the shop—for lifting, pressing, bending, straightening jobs. Micrometer accuracy.

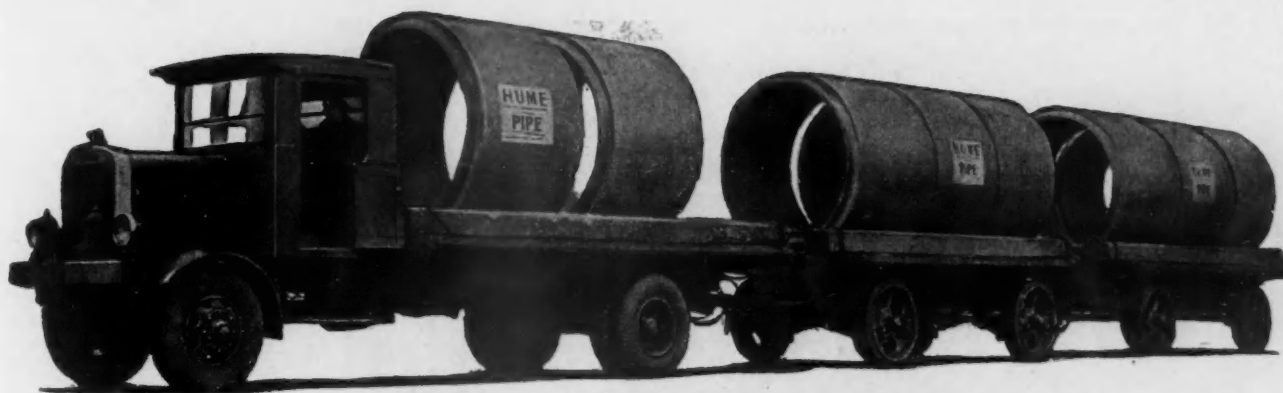
BLACKHAWK HYDRAULIC JACKS

BLACKHAWK MFG. CO.
Dept. C. O., Milwaukee, Wis.

Send literature on truck and shop jacks. ☐ Include wrench folder.

Name _____

Address _____



What You Need in a TRUCK You'll Find in a FREEMAN



Nineteen tons of poles on a 3½-Ton Freeman.



Detroit City Public Lighting Commission earth boring machine.

If extraordinary performance is demanded of your trucks, day after day, the FREEMAN TRUCK will prove to be most economical for you. No truck has excelled the FREEMAN under conditions such as required by Army Tests.

If your hauling jobs are the ordinary kind, the daily earnings and the economical upkeep place the FREEMAN TRUCK in a class by itself.

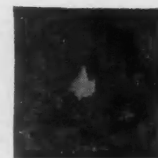
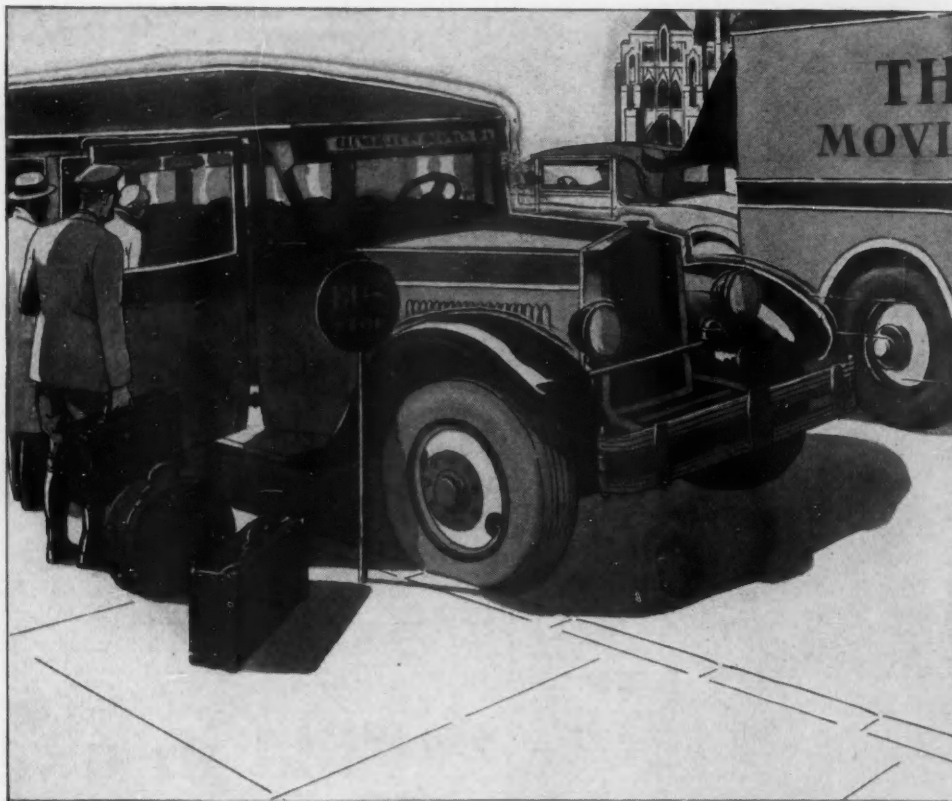
Truck Dealers sell FREEMAN TRUCKS to operators because of their performance and because of their economy on tires, gas, oil and upkeep—under ordinary or extraordinary circumstances.

Send for Complete Information
on the Freeman Truck

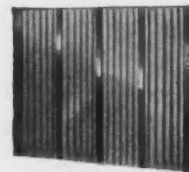
FREEMAN MOTOR CO.
Detroit, Mich.

IF FREEMAN

4 wheel drive



A wood separator that wore through and caused battery failure.



The patented Willard Thread-Rubber insulator that defies wear.

VIBRATION

is a common cause of battery failure . . . so we fortify Willards with *Thread-Rubber Insulation*

ROUGH roads, a loose motor, a grabbing clutch can set up enough vibration in an ordinary storage battery to wear holes completely through the insulation that separates the plates.

It has never been possible to construct a battery with rigid plate assemblies. But Willard has produced an insulating material that is practically immune to the wear that results when the plates vibrate. It is composed of rubber, threaded with thousands of wicks to insure porosity, and reinforced with hard rubber ribs. Thread-Rubber insulation makes the most durable truck or bus battery you can buy.

Willard STORAGE BATTERIES
CLEVELAND · OHIO

THE SIGN ON THE BODY IS A SIGN OF APPROVAL

For every sign on the body somebody has signed on the dotted line.

The daily parade of Atterbury trucks on America's streets and highways presents the significant approval of critical truck buyers when you read the signs on the bodies.

The Who's Who of Atterbury owners includes many distinguished names from the Who's Who in American business. 1930 Atterbury Sales Records show that representative truck buyers in such exacting fields as oil and gasoline, dairy and ice cream products, highway transportation, bottlers, public utilities, as well as state and municipal governments are buying Atterbury Trucks.

And it is just as gratifying to know that the man whose business may require just one extremely economical truck is deciding on the Atterbury.

The following page gives quick facts about the 1930 line of Atterbury six cylinder trucks



ATTERBURY

is as proud of the friends it
makes as the trucks it makes

SIX GREAT SIXES

**Built by the Oldest Exclusive
Truck Manufacturer in America**

1, 1½ and 2 Ton Sixes

Six Cylinders... 4 Speed Transmissions...
Timken Axles... 4 wheel Hydraulic Brakes
... Pneumatic Tires and Steel Wheels...
Smart Appearance... Speed... Power...
Flexibility... built to cost less by lasting
longer.

2½, 3 and 4 Ton Sixes

70, 80, 90 horsepower Six Cylinder 7 bearing
motors... latest type heavy duty trans-
missions... positive brakes with vacuum
boosters... heavy frames... Timken
axles... Budd steel wheels and heavy duty
pneumatic tires... 153" to 232" wheel-
bases... handsome low hung chassis...
unquestionably more truck per dollar.

*Send for Complete Literature and the
reasons why you'll enjoy doing bus-
iness with Atterbury.*

ATTERBURY MOTOR CAR CO.

Elmwood Ave. at Hertel

Buffalo, N. Y.



AMBLER AUTOBESTOS

BLUE BRAND

BUS-TRUCK Lining

Developed Specifically
for the
BUS AND TRUCK FIELD



In offering Ambler Autobestos Blue Brand Bus-Truck Lining, Keasbey & Mattison Company is marketing a lining that is more than an adaptation of regular lining to truck and bus service. Blue Brand Bus-Truck is like regular Ambler Autobestos in one respect only—it is made from the best grade of long fibre chrysotile asbestos. All its other characteristics reveal it as a replacement lining developed specifically for the exacting, severe service characteristic of the bus-truck field.

Ambler Autobestos Blue Brand Bus-Truck Lining is a woven lining for internal expanding brakes. It is densely woven and highly compressed, yet

it will not score the drum. Neither will it bleed, crack or break. It is accurate in dimensions. It has the right coefficient of friction. It is especially suitable for vehicles with booster brake equipment, as well as for trailer operation. It comes in rolls, reducing the amount of stock you need carry. You can cut it off and apply it as needed.

Ambler Autobestos Blue Brand Bus-Truck Lining is the most economical replacement lining fleet operators can buy. Its smooth, effective braking action and longer wear will increase the profitable operation of your equipment. Try Blue Brand Bus-Truck on your next reline job.

**KEASBEY & MATTISON
COMPANY.**
Ambler Pennsylvania



The Right Combination for GENUINE Timken Bearing Performance

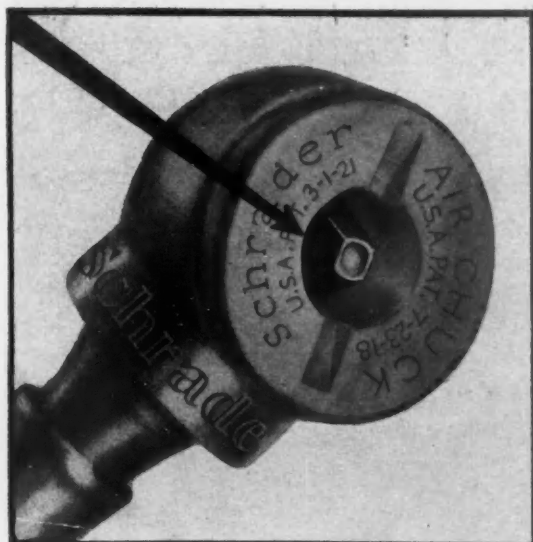
When a bearing is required for a Timken-equipped truck, there is just one way to restore original Timken performance and service and that is to install a *complete* new *genuine* Timken Bearing—both cup and cone.

Furthermore, the truck will be in service again in the shortest possible time, for you can obtain a *complete* new *genuine* Timken Bearing of the proper size *immediately*, conveniently packaged and stamped with the name "Timken" on cup and cone—indisputable proof of genuineness and positive assurance of satisfactory performance, by simply calling the Timken Authorized Distributor—he's just at the other end of your telephone.

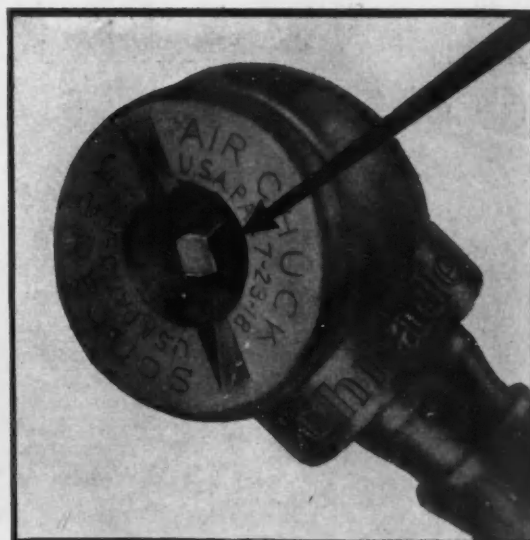
Fleet owners will find this Timken Bearing service invaluable when needed.

THE TIMKEN ROLLER BEARING SERVICE
& SALES COMPANY, CANTON, OHIO

TIMKEN *Tapered Roller* **BEARINGS**



Left—This is the old-style chuck pin with the dimple in the end. It is slow in inflating certain types of valves.



Right—Here you see the new, smooth-end chuck pin—which gives better inflation on all types of valves. The coupon will bring you a supply FREE.

FREE!

These New Improved Chuck Pins

Satisfactory Inflation for *all* Valves

Send coupon below for enough to supply your air lines—FREE

DO your air lines operate satisfactorily on all types of valves? Do they inflate some types slower, or show chuck leakage when chuck is applied to the valve stem?

If your Schrader chucks have the old, dimpled type pins, you may find that some valves take the air much slower than others and cause the chuck to leak. Now you can get satisfactory inflation on *all* types of valves simply by changing your chuck pins.

Without charge, you can secure from

Schrader

Makers of Pneumatic Valves Since 1844

Tire Valves • Tire Gauges

A. Schrader's Son, Inc., a new type chuck pin. The illustration at the right clearly shows this new chuck pin design.

Look at your air chucks. If the pins are old style, mail the coupon at once. It will bring you, without cost, enough new pins to modernize your air lines.

There is no obligation whatever. This free service is part of the Schrader practice of improving Schrader products by every means. A. Schrader's Son, Inc., Brooklyn, Chicago, Toronto, London.

FREE COUPON

A. SCHRADER'S SON, INC.,
P. O. Box 773, Washington & Johnson Sts., Brooklyn, N. Y.
Gentlemen: Please send me, free, enough new chuck pins to supply all my chucks.

Name

Address

City

State

I operate air lines.
(number)

A WIDE VARIETY OF SPECIAL EQUIPMENT

There is a complete line of White Motor Trucks—fours and sixes—with standard or special equipment to meet every need of motor transportation. Illustrations show only a few of the many White applications of special equipment.



Loads of great weight can be carried with dispatch and economy by White Trucks and Trailers.



White Trucks with various power hoists are available. Illustration shows White with 3-way dump body.



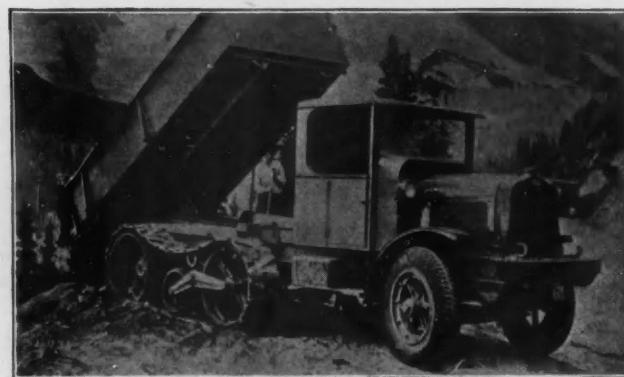
White Heavy-Duty Trucks are dependable and economical units for transporting ready mixed concrete.



White six-cylinder Model 59A six-wheel tank truck and trailer with carrying capacity of 17 tons.



White Trucks with winch equipment serve hundreds of telephone and light and power companies.



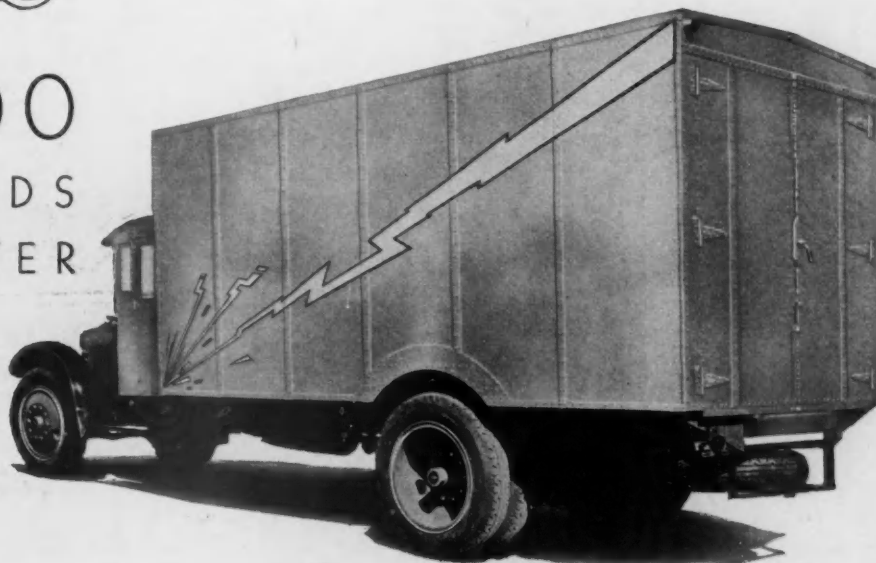
White Heavy-Duty Truck equipped with Christie Crawler for operation in sand or soft ground.

THE WHITE COMPANY, *Cleveland*
WHITE TRUCKS
and **WHITE BUSES**

STRONG TO BEAR BURDENS
—LIGHT TO MOVE



4000
POUNDS
LIGHTER



900 TON-MILES SAVED EACH DAY

By using a body made of the light, strong Alloys of Alcoa Aluminum on this $3\frac{1}{2}$ ton White Truck, the Red Line Transfer Company of Los Angeles saved 2 tons in the structural dead weight.

Traveling 450 miles per day means a daily saving of 900 ton miles—an increase in pay load of 57%. Translate this in terms of days saved it means 171 working days free.

Added to this remarkable story are radical reductions in body maintenance cost, savings in painting, plus the higher scrap value of the body when it is worn out.

Where could you invest your money and get such a satisfactory and such lasting return in profit?

This accomplishment is being duplicated everywhere through the use of light, strong Alloys of Alcoa Aluminum weighing only $\frac{1}{3}$ as much as iron or steel—in moving vans, dump trucks, light delivery wagons and hundreds of other services.

Our engineers will gladly make a study of your particular problem. Write us. ALUMINUM COMPANY of AMERICA; 2439 Oliver Building, PITTSBURGH, PENNSYLVANIA.



The Commercial Car Journal
and Operation & Maintenance

ALCOA ALUMINUM



April, 1930

"Your profit lies in the extra load your Highway Trailer carries."



**The 1½ Ton
Truck Now
Has a 3 Ton
Capacity**

Pictured here is a Chevrolet tractor with a 3 ton Highway Trailer. Specially developed Highway Trailers for use with Fords and Chevrolets are solving the hauling problems of many operators, cutting costs and increasing efficiency.

HIGHWAY TRAILERS DOUBLE THE CAPACITY OF YOUR TRUCKS

THE greatest development in transportation, outside of the perfection of the motor truck itself, has been the adoption of trailers to motor trucking. On the premise that the motor truck can pull more than it can carry itself, our engineers have designed Highway Trailers to utilize the full power of the truck.

Because Highway Trailers double and triple the capacity of motor trucks they provide more efficient and economical transportation for oil companies, lumber yards, dairies and condenseries, transfer companies, cattle haulers, public utilities and canneries.

There is a Highway Trailer which will reduce *your* costs of transportation. We will be pleased to send you a full description of the models best suited to your needs. The Highway Sales and Service branches and distributors are located in all principal cities assuring you the best in service.

HIGHWAY TRAILERS ARE BUILT IN THE WORLD'S TWO LARGEST TRAILER PLANTS, AT EDGERTON AND STOUGHTON, WISCONSIN. Highway Trailers are manufactured complete, except for tires and Timken bearings. They are not "assembled jobs," but instead, the product of a complete engineering and manufacturing organization.

There are still a few territories open for leading truck equipment dealers to represent the Highway Trailer Company.

**HIGHWAY
TRAILER CO.**
EDGERTON, WISCONSIN



HEIL HYDRAULIC HOISTS

The profit of contract road building jobs hinges on efficient use of time. Road building contractors spend large sums on labor saving machinery to reduce operation costs to a minimum. Dependable concrete mixers, surfacers and dump trucks are of first importance.

Heil Hydraulic Hoists and all-steel Bodies for dump truck service have proved so reliable that you will find the truck fleets of many of the country's largest road building contractors completely Heil-equipped.

Heil Hydraulic Hoists are simple in design and apply their lifting effort directly against the load at all angles of the dumping operation. The Heil Hoist mounts at the strongest point of the chassis frame and permits ready accessibility to servicing the rear end of the truck.

Heil Hoists are made in six sizes for trucks of one to ten tons capacity. If you are a seller of dump trucks or a buyer of dump trucks, you will be interested in Bulletin 160 and the Heil Dump Body Catalog: address:

THE HEIL CO.

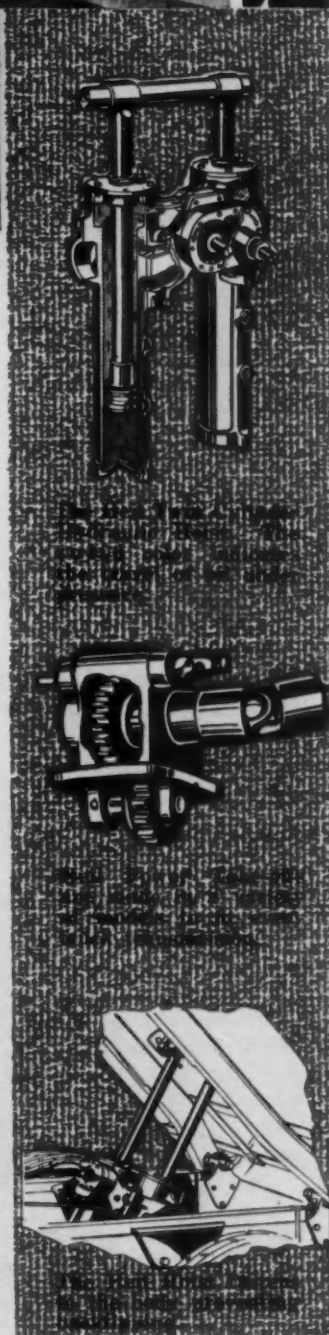
1401 MONTANA AVE.

MILWAUKEE, WISC.

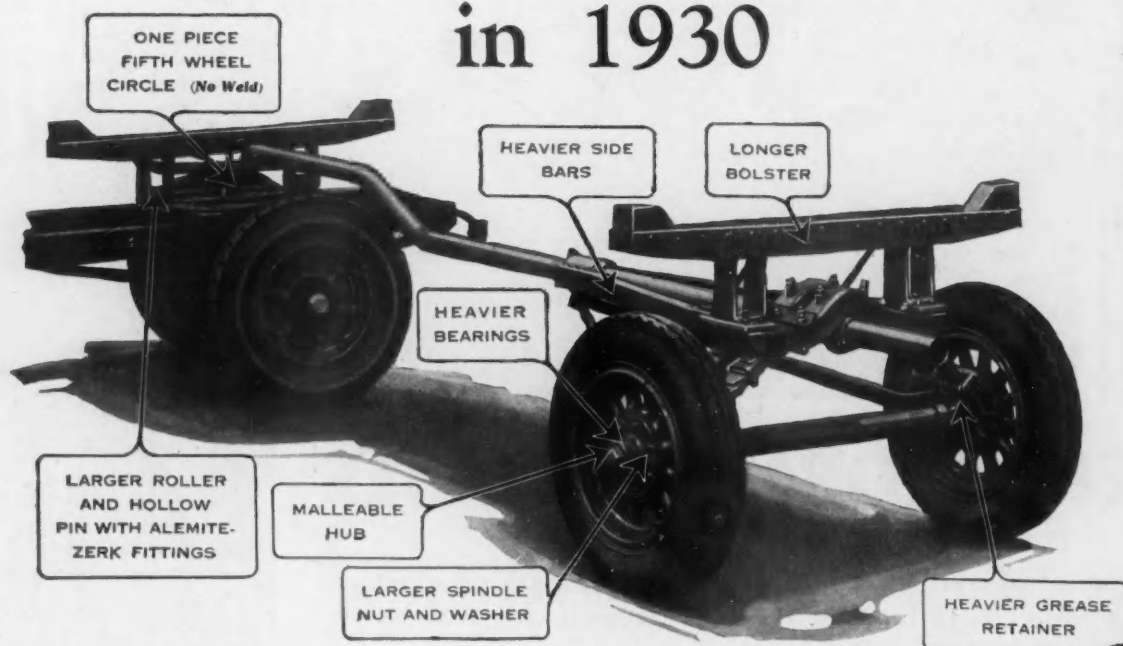
BRANCH OFFICES: NEW YORK BOSTON PHILADELPHIA DETROIT CHICAGO
DISTRIBUTORS IN ALL KEY CITIES

*The Commercial Car Journal
and Operation & Maintenance*

April, 1930



KINGHAM TRAILERS and WINCHES promise an unprecedented opportunity in 1930



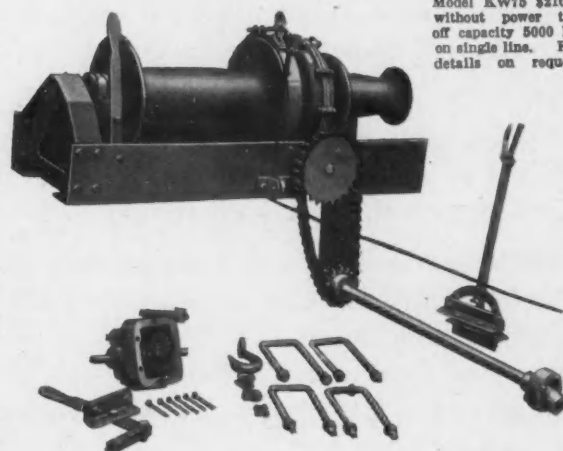
More and more are truck dealers and operators realizing the utility and practicability of the Kingham line of Trailers, Winches and Transports.

The illustration above shows some of the recent improvements incorporated in the Kingham Trailer—proving that the Kingham Line is keeping abreast of the latest trends in trailer design and engineering.

This line is complete. It has many marked advantages. It is priced to meet your demands. It is rounded to give you the exact winch you require . . . or the trailer that is most adaptable to profitable hauling. It is growing daily in its popularity.

Kingham winches are made very simple in design yet sturdy enough to stand the rough treatment of everyday usage. They are very desirable for any haulage job within their capacity as shown and can be furnished for mounting either on the truck chassis only or truck with platform body. Their Maximum Service, High Quality and Low Price have increased their rapid strides toward popularity. Kingham winches are made in three sizes.

*Write for New Catalogue on Winches
and Trailers*

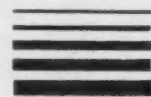


Model KW75 \$210.00
without power take
off capacity 5000 lbs.
on single line. Full
details on request.

1. Bronze bearings in spools, avoiding sticking or freezing.
2. New type brake with $2\frac{1}{4}$ " instead of $1\frac{1}{4}$ " bands, which gives wider braking service, and makes the winch much stronger in every way.
3. Brake cable is still regular equipment, but we can furnish rod if ordered at no extra charge.
4. Brake is operated thru a lever and cam arrangement, from bottom of drum in place of top, eliminating unnecessary levers.



KINGHAM TRAILER COMPANY, Inc.
LOUISVILLE, KY.



A good "BIG ONE"



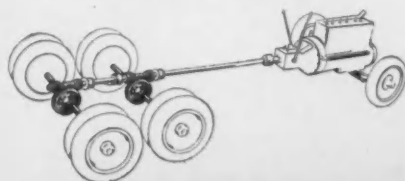
It's true of motor trucks—as in the A-B-C's of boxing—there's nothing so efficient as a good "Big One."

An ability to take a pounding without being hurt; and a punch that gives ton-mile costs the worst beating they've had in many years—these make Timken Six-wheel Units ideal for the "big fellows."

Increased pay load and traction capacity; four driving wheels, four-wheel or even six-wheel brakes; flexibility that conforms to rough ground; minimized road shocks that spare all working parts—these advantages are yours with Timken Six-wheel Units; and you keep operating and maintenance costs as low as possible.

A good many alert operators use Timken Six-wheel Units now—and want more.

The Timken-Detroit Axle Company
Detroit, Michigan



TIMKEN SIX WHEEL UNIT

A four-wheel worm drive unit for six-wheel vehicles

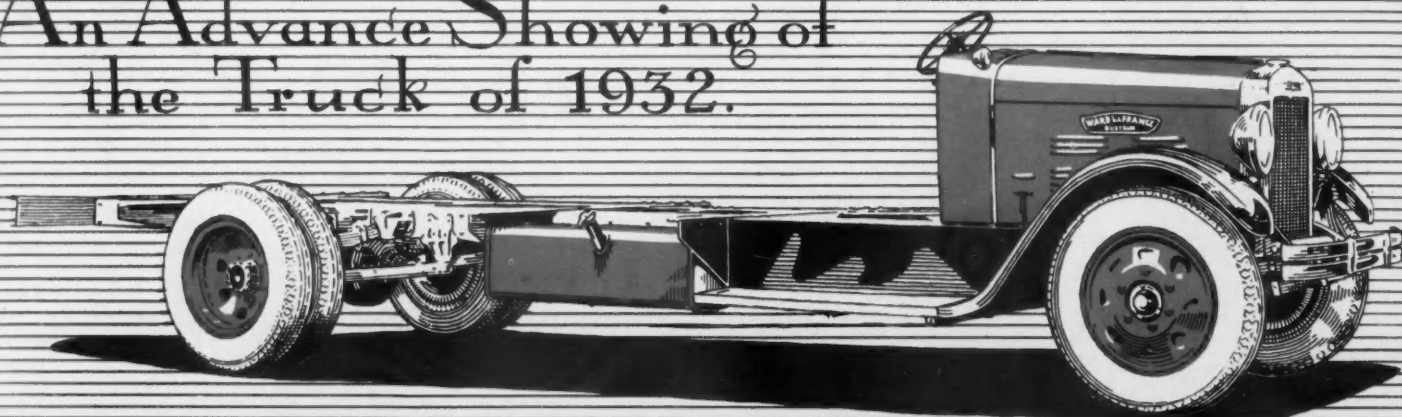
The Commercial Car Journal
and Operation & Maintenance

April, 1930

WARD LA FRANCE

BUSTRUK

An Advance Showing of
the Truck of 1932.



Ward La France, Model 25B, 110 H.P. Eight Cylinder "BUSTRUK". Total Gross Rating, 13,000 pounds
Shown with outriggers and side gasoline tank for Van or Bus Body Installations

A Real Truck with Bus Features

THE COMMERCIAL STRAIGHT "8"

"BUSTRUK"

BUS FEATURES

Quiet, vibrationless, eager power.
Snappy speed and easy hill climbing.
Security of low-hung chassis.
Safety of power — actuated four wheel hydraulic brakes.
Smooth riding of progressive springs and balloon tires.
Notable style and its inherent advertising value.

TRUCK FEATURES

Endurance of heavy-duty engine design. Low bearing pressures. Accessibility. Less driver fatigue. Improved steering. New fuel economy. Lower ton-mile costs. Less running time. Rigid 12" frame structure. Strength and rigidity of new design cross-members.
Load carrying ability. Auxiliary overload springs. No shackle lubrication.
Flexible protective mounting of all units including cab.

For the first time the combination of great power, speed and flexibility with the assured certainty of safety and the advertising value of brilliant style—plus—new mechanical perfection and heavy duty construction, usable load carrying ability and economy surpassing all previous achievements.

AN IDEAL CHASSIS for bulk haulers. The out-riggers provide for mounting commercial bodies of bus type construction saving several inches in floor height. In no manner has ruggedness of design or load carrying ability been sacrificed for style. The beautifully finished clean cut engine, the walnut finished instrument board, the nickel-plated controls, steering column, etc. are but outward evidences of the "full jeweled" construction beneath. A casual inspection of the 8 cylinder "BUSTRUK" reveals it as a high-light in our twelve years of truck engineering leadership. From every standpoint, it opens up a new era in commercial transportation.

The performance of the Ward La France 25B "8" Cylinder "BUSTRUK" is so absolutely superior that you will recognize it immediately when you sit behind the wheel.

Its artistic design of graceful sweeping lines beginning with the cleverly mounted and attractive Chromium plated radiator and continuing back thru hood and cowl, does not in any way effect its utility as a commercial hauler.

To Dealers: While WARD LA FRANCE TRUCKS are custom-built, we have an exceptional sales proposition for a limited number of responsible truck dealers.

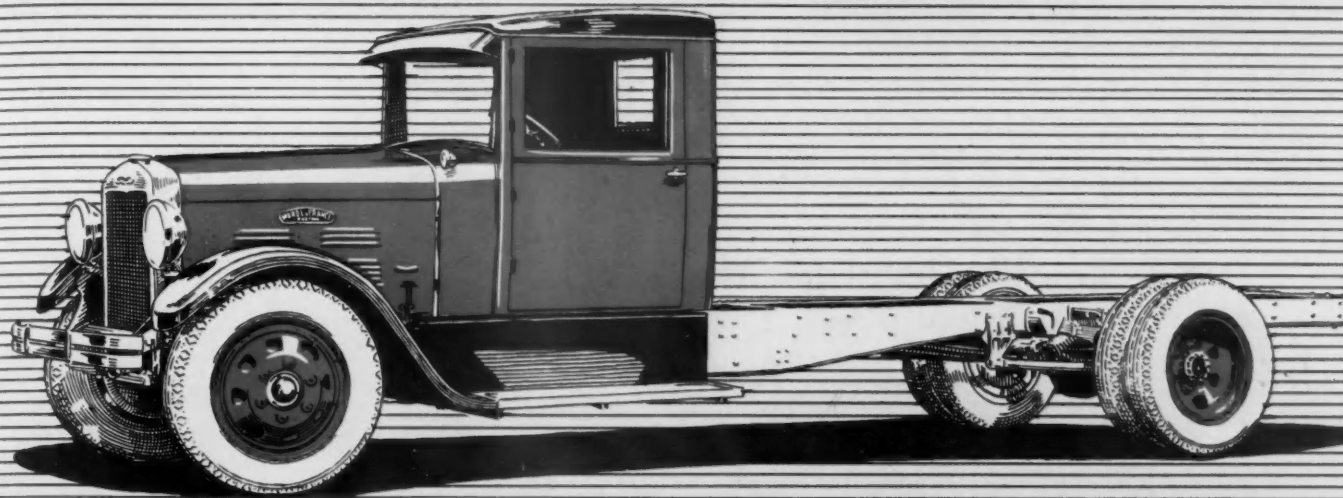
The "BUSTRUK" has many added features over the standard truck—there is none other so complete. Forty miles or better on a cracked throttle with a total gross load is like coasting, and its mighty, powerful engine makes a run of one hundred miles, uphill and down, in three hours a fair average with a consumption of about thirteen gallons of gas only.

AND REMEMBER—The "BUSTRUK" shares honors with twelve other brilliant models in the Ward La France truck family including up to seven and one-half tons, which will care for any hauling need.

Enterprising dealers should get our proposition at once—don't delay—*get in with this epoch making truck*—there's sure profits for you!

WARD LA FRANCE

BUSTRUK



Ward La France, Model 25B, 110 H.P. Eight Cylinder "BUSTRUK". Total Gross Rating, 13,000 pounds.
Shown with cab for general commercial body installations

THE "BUSTRUK" CAB as evidenced by the illustration provides a unified artistic design in connection with the cowl, hood, and the beautiful bus-type crown fenders. The interior finish and the genuine leather upholstery conform in appearance, comfort and durability, to the balance of the chassis which is of girder construction amply gusseted thruout.

The Ward La France Commercial Straight "8" engine was developed strictly for "BUSTRUK" service. This engine produces a vibrationless flow of power unobtainable with less cylinders and without excessive weight. This fact has been amply proven in engines developed in the aeronautic, marine and rail-car field.

Ward La France now offers the "BUSTRUK" with this ultimate commercial power-plant to operators and dealers looking to the future. Ward La France has always lead the field in the development of improved truck construction and the 8 cylinder "BUSTRUK" is not only a conspicuous value-leader but surpasses all previous Ward La France achievements.

The Ward La France Commercial Straight "8" "BUSTRUK" Engine

ESPECIALLY developed for commercial service. Of rugged construction thruout. Its accessibility and clean cut appearance strongly appeals to the experienced truck operator. The smoothness of the straight "8" is generally acknowledged. In this Ward La France Commercial "8" the low bearing pressures, the moderate engine speed at high road speed and the lightness of its reciprocating parts provide in addition, exceptional durability and long life. Its power in relation to the total gross load makes possible its outstanding performance in speed and hill-climbing.

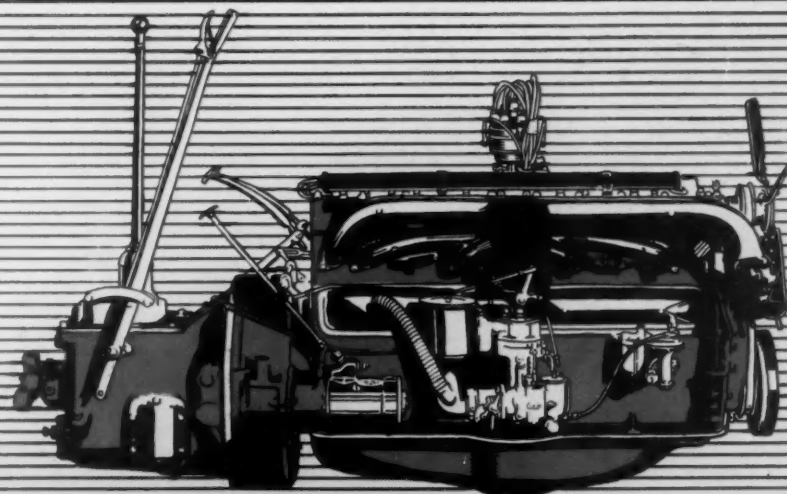
Ward La France Truck Corporation Elmira, New York

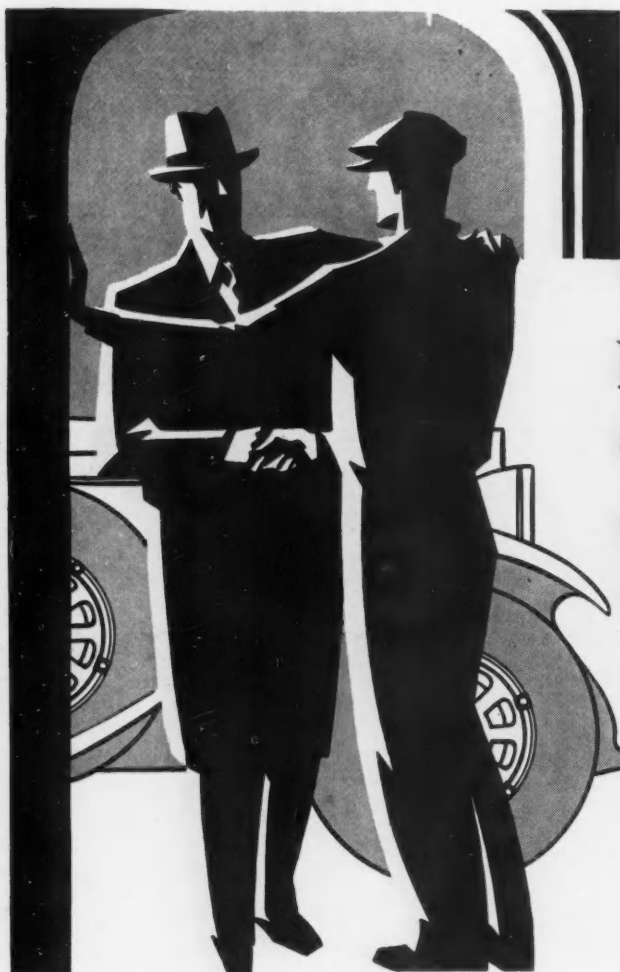
Direct Factory Branches

New York City
139th Street and
Southern Blvd.
Phone Ludlow 3900

Jersey City, N. J.
880 Communipaw
Avenue
Phone Delaware 2700

Long Island City, Long Island
Queen's Blvd. and 35th Street
Phone: Stillwell 3147





WHEEL AND RIM INSPECTION *means*

WOULDN'T YOU RATHER HAVE CUSTOMERS SWEAR *BY* YOU THAN *AT* YOU?

Satisfied customers are your best salesmen. That's why we ask: "Wouldn't you rather have customers swear by you than at you?" . . . The difference between a "sorehead" and a "loud speaker" of praise for your service is the difference between a job done in half-hearted style and one done 100%. . . . Selling your service **RIGHT** means following right through to thorough inspection of rolling equipment. . . . Customers will swear by you and your shop if you show them why complete service calls for replacement of damaged, rusty rims and worn or missing rim parts as well as scientific wheel alignment. If you don't . . . they'll swear at you!

Extra

TIRE MILEAGE

Since car owners pay for mileage when they buy tires, protect their investment by showing them that no tire can give the service expected of it if it is mounted on a damaged rim or wheel.

Extra

CUSTOMER SATISFACTION

This sort of Extra Tire Service means customer satisfaction and that is what brings repeat sales and a steadily mounting prestige for your establishment and its 100% service.

Extra

PROFIT FOR YOU

Since rim and wheel sales can be built up without increasing your present overhead every extra rim or rim parts sale means Extra **NET Profit** for you. Velvet, in other words.

Complete Your Service by Carrying a Stock of Standard Wheels, Rims, Parts

BUDD WHEEL COMPANY
CLEVELAND WELDING CO.
DAYTON STEEL FOUNDRY CO.
FIRESTONE STEEL PRODUCTS CO.



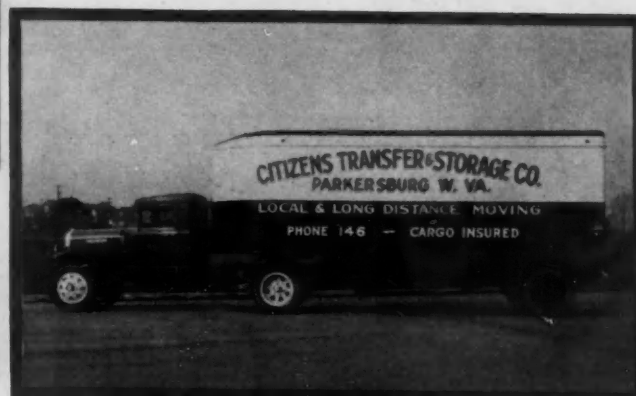
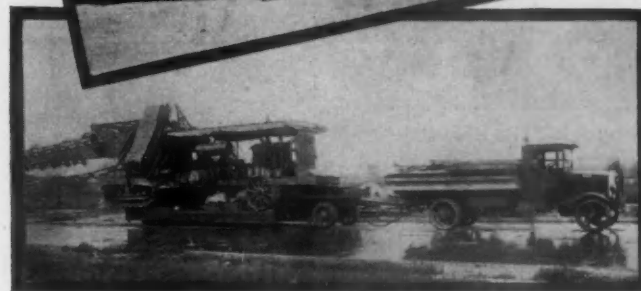
KELSEY-HAYES WHEEL CORP.
UNITED MOTORS SERVICE, INC.
MOTOR WHEEL CORPORATION

NATIONAL WHEEL AND RIM ASSOCIATION

63 EAST LAKE STREET — CHICAGO, ILLINOIS

April, 1930

The Commercial Car Journal
and Operation & Maintenance



Thousands Are Ready to Buy

The market for Trailers is really only beginning to open up. Of course, thousands and thousands have been sold but these sales do not begin to scratch the surface of the great mass of prospects that are now ready and waiting to buy. Haulers of every kind, motor truck manufacturers and American industry as a whole have proved and now accept the Trailer idea as practical and profitable. Fruehauf is ready to meet this demand with a complete line of Trailers—Semi-Trailers, 4-Wheel Trailers, Gasoline and Oil Drop Frame Trailers, Pole Trailers and Heavy Duty Carryalls. Fruehauf, oldest and largest manufacturer of Trailers, is the company to connect with—it offers the outstanding sales opportunity. Right now is the time to act. Why not drop a line for complete information today?

FRUEHAUF TRAILER CO.
10957 Harper Avenue Detroit, Mich.

Fruehauf Trailer Company of Canada, Ltd., Toronto, Ont.
Branches and Distributors in ALL Principal Cities

FRUEHAUF TRAILERS

ARE YOU HEADED FOR A TRUSS?

IS ROADSIDE-RUPTURE staring *you* in the face? Are *you* suffering from creaking back, stone-bruised knees and tire bills leaping before the eyes? If so—read on—for THERE IS STILL HOPE!

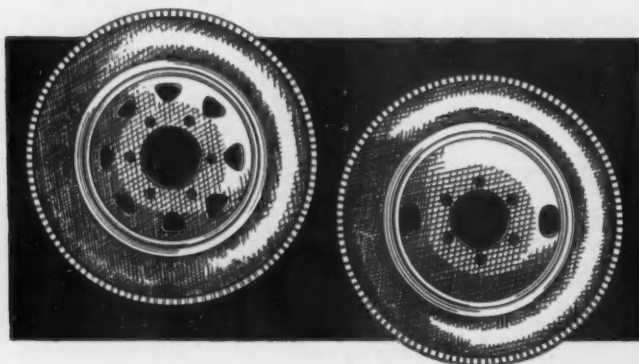
AVOID EXCESSIVE TIRE CHANGING!

PROMINENT SCIENTISTS, such as Professor Giblets, Dr. William Gizzard and Dr. Lavin Levinsky, all agree that roadside-rupture and its attendant troubles are the dread results of excessive tire-changing.

AND THESE EMINENT AUTHORITIES agree that *wobbling duals* are the little rascals that scuff your tires silly. They keep you wrestling truck wheels and juggling spares—sometimes far into the night.

A GREAT INVENTION!

FURTHERMORE THESE GREAT TRUCK PHYSICIANS unite in enthusiastically endorsing Budd Duals as a marvelous discovery which staves off roadside-rupture. For Budd-Michelin Duals make chronic blowout merely a bitter



memory, and thus bar the TRUSS from ever darkening *your* home.

THE BUDD DUAL does away with excessive tire-changing because it's wobble-proof. Each of its sections grips the hub with its own set of cap-nuts. First you slap on the inner wheel and anchor it to the hub with a set of *inner* cap-nuts—then you put on the outer wheel, and fasten it immovably with *its* set of *outer* cap-nuts.

There's no kind of truck use or abuse that can ever wobble that Budd Dual set-up!

ACT NOW!

WAKE UP!—Don't gamble with your HEALTH! Start using Budd Duals NOW—and be forever free from the THREAT OF A TRUSS!

P. S. If your present trucks haven't Budd Duals, change over *now*. Budd distributors in all principal cities are prepared to supply complete sets and meet all other service requirements.



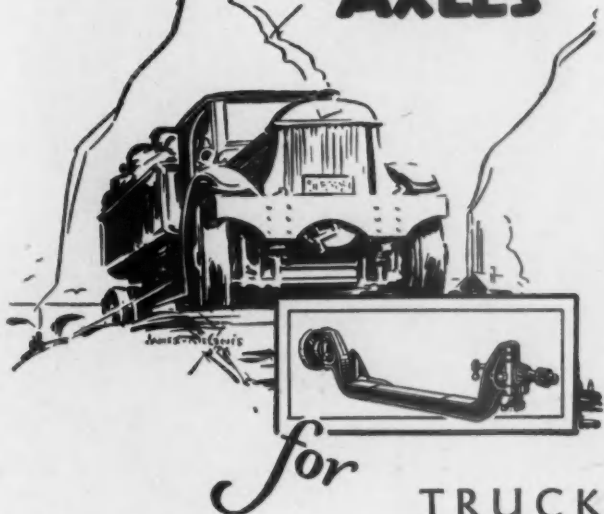
STAY
LIVELY
LIKE THIS

BUDD DUALS

BUDD WHEEL COMPANY
DETROIT

SHULER

FRONT AXLES



for

TRUCKS
TRACTORS
and
TRAILERS

FRONT
AXLES
ONLY

With or
without
brakes.



Dependable Source of Supply

Rash promises and various claims of one sort or another may land occasional orders, but business that repeats of

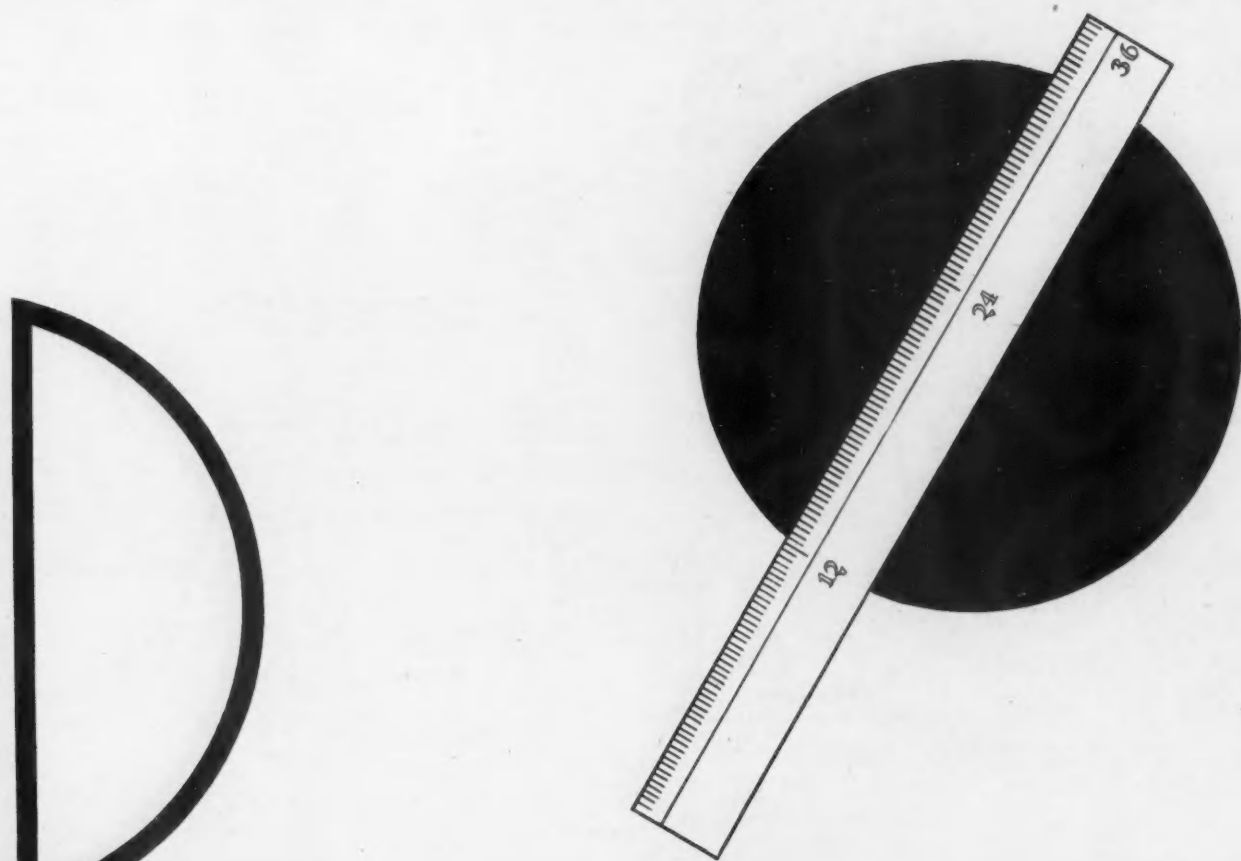
its own accord results from Dependability.

Dependability that is evidenced through the predominance of "SHULER" on current specification sheets. A predominance which has enjoyed consistent growth through its years of progressive, dependable service.

SHULER AXLE CO.

INCORPORATED

LOUISVILLE KENTUCKY



Put your stopping ability to the yardstick test » »

On the assumption that every motor transport operator is vitally interested in making the quickest possible stops in the shortest number of feet, the Automotive Air Brake is recommended as the one method of control which offers these advantages with incomparably smooth, effortless operation and perfect safety.

Put your present stopping ability to the yardstick test . . . Compare the result with the flexibility of modern, Automotive Air Brakes

and you have the answer to the wide-spread acceptance power brakes enjoy today.

In making these comparisons, specialists in the art of power brake control are always ready to assist you. These men are technically trained to render invaluable consulting service to the fleet operator and may be had by addressing the BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY at Pittsburgh, Penna.

6276-A

BENDIX-WESTINGHOUSE

Automotive AIR BRAKES

April, 1930

*The Commercial Car Journal
and Operation & Maintenance*



Model 8UB St. Paul Underbody Hydraulic Hoist Equipped Fageol chassis 6-66 six-wheeler with 4 cubic yard body and removable sides by Earl B. Staley Co., St. Paul Hoist distributor in Seattle, Wash. and Portland, Ore.

And Then Some!

Continuous overloading decreases the life of your truck and hoist and increases your operating costs through possible delay, due to damage so inflicted. Yet, all St. Paul Hoists are equal to that occasional overload and its excess strain—*and then some*. This is due to the generous extra margin of rugged strength built into each St. Paul Hoist.



Model 7UB St. Paul Underbody Hydraulic Hoist Equipped Kenworth chassis and 4 cubic yard flare side body, also equipped by Earl B. Staley Co.

If you have a new truck or an old truck, a heavy truck or a light truck—there is a St. Paul Hoist for it.

"Ask the Dump Truck Driver on the Job"

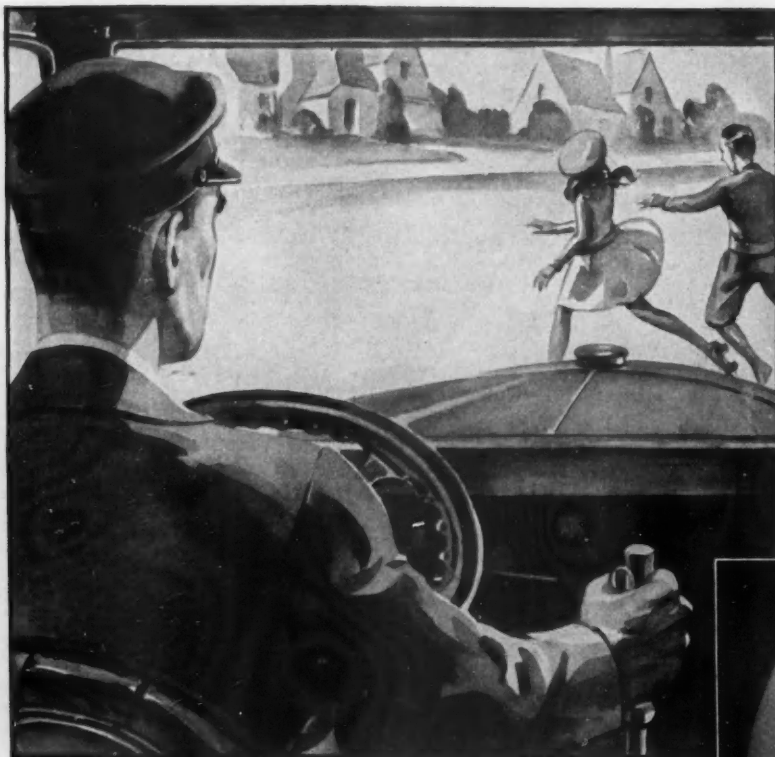
—St. Paul—

**VERTICAL AND UNDERBODY
HYDRAULIC HOISTS**

St. Paul Hydraulic Hoist Company

Factories at St. Paul, Minnesota

A St. Paul Hoist Distributor and Service Station is near you. Write for name and address



STOP!

...and Tru-Stop stops!

A heavy load needs plenty of reserve braking power. TRU-STOP supplies just that. It is more than a parking brake. TRU-STOP is in reality a *dependable hand operated service brake*—a secondary brake on the drive shaft.

TRU-STOP operates with the nicety of the most perfectly adjusted foot brake. Immense braking power is achieved by a compound lever system which squeezes two lined brake shoes onto the brake disc.

The brake disc is a *ventilated* drop-forged disc, which supplies its own air current—to dissipate heat generated when braking. The ventilated disc keeps the brake linings cool and prevents universal joint heating. Any ordinary driver can adjust a TRU-STOP Brake in a few minutes by moving one pin. It is self equalizing—non-self energizing and does not chatter or grab.

Standard make transmissions have provisions for mounting TRU-STOP Brakes. Insist that your new buses or trucks have TRU-STOP Emergency Brakes.

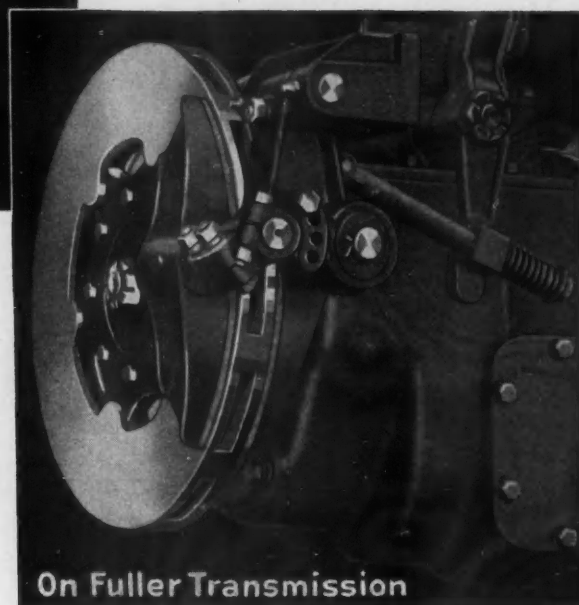
For complete information address:

AMERICAN CABLE COMPANY, Inc.

Automotive Division

Bridgeport, Conn.

3-111 General Motors Bldg., Detroit, Mich.



On Fuller Transmission

Won't grab

Positive action

Positive release

Dissipates heat

2 minutes to adjust

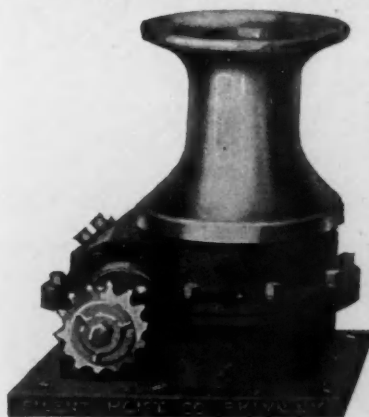
20 minutes to reline

Interchangeable parts

TRU - STOP

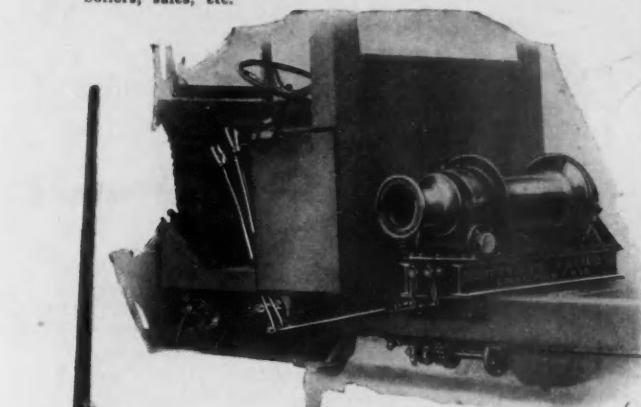
A REAL EMERGENCY BRAKE

SILENT HOIST WINCHES - CRANES - DERRICKS for all makes of MOTOR TRUCKS AND TRACTORS



Vertical Capstan Winches:
For handling machinery,
boilers, safes, etc.

The motor truck as a working unit is now considered as great, if not greater than as a transportation unit. Equally important is the loading and unloading of heavy and bulky items quickly and efficiently. Winches, Cranes and Pole Setting Derrick, mounted on motor trucks and driven by the engine, multiply the usefulness and earning capacity of the truck from 200% to 500%. BUT—the additional investment required is only from 5% to 15%. Write for catalog on SILENT HOIST Winches, etc.



ABOVE: Typical installation Jaw Clutch Drum Winch. The original self-locking, non-reversible, worm-gear driven, multiple-speed winch.
BELOW: SILENT HOIST Tripod Pole Setting Derrick. Side legs will not bend or buckle. 3-piece middle leg—easily adjustable and more easily handled.



SILENT HOIST
Winch & Crane Co.
INC.

(Agents
in
Principal
Cities)

762-772 HENRY STREET
BROOKLYN, N. Y.

The Commercial Car Journal
and Operation & Maintenance



Good Roads



MACHINERY for the Roadbuilder and Roadbuilding Contractor



"Good Roads" Sand Spreader for applying
sand, ground cinders or salt to slippery
roadways or streets.

HIGH-SPEED SNOW PLOWS

For attaching to all Standard
Motor Trucks from one ton
capacity to the heaviest built.



A Type and Model to
meet every condition of
high speed snow removal.

Reversible blade—
Shovel-nose
and "V" Type Plows.

Manufacturers of

BITUMINOUS DISTRIBUTORS (heater type)

for applying Asphalts and Tars

COLD APPLICATION OIL DISTRIBUTORS

(Adaptable to all Standard Trucks)

ROAD ROLLERS ROAD DRAGS
CHIP SPREADERS
ROCK CRUSHING—SAND and GRAVEL
EQUIPMENT

THE GOOD ROADS MACHINERY COMPANY

Incorporated

KENNETT SQUARE, PENNA.

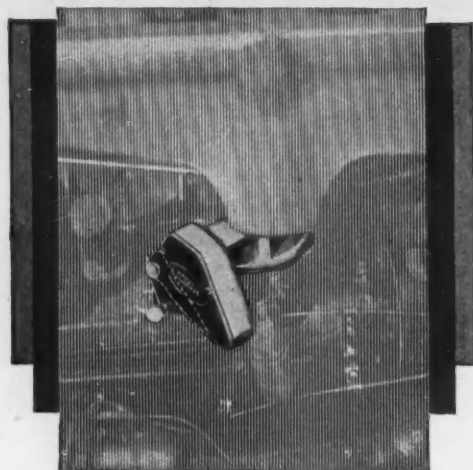
Sales Branches:

PHILADELPHIA PITTSBURGH
NEW YORK CHICAGO
HARRISBURG, PA. FRANKFORT, KY.
WATERTOWN, MASS.



April, 1930

over
500,000
 Now in use



Engines and chassis of more than 500,000 trucks and delivery cars are today protected against damage from over-speeding by the automatic, velocity-type Handy Governor.

Manufacturers of fully equipped trucks—American and European—build the Handy into the motor at the parent plant. Fleet owners have learned to put no vehicle into service without this same Handy protection. Dealers everywhere recommend, sell and install it.

Such facts as these point straight to a definite conclusion.

It **MUST PAY** to govern with Handy.

Advise your customers accordingly. Sell them more trucks as the result of their successful experience.

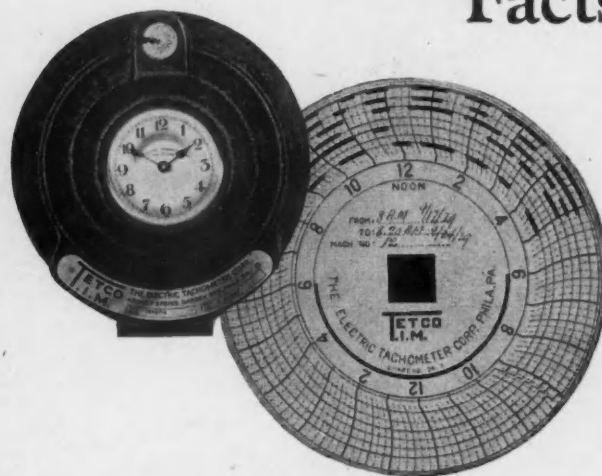
Install in a few minutes. Set to desired top speed and seal. The Handy will last for the life of the truck.

HANDY GOVERNOR CORPORATION
 3929 West Fort Street Detroit, Michigan

HANDY GOVERNORS

April, 1930

You Don't Question Facts



**TETCO
 T.I.M.**

Gives it
 to you
 Straight

You can't very well out-argue facts. They have a persistent way of insisting that the truth is the truth—no more—no less. If TETCO T.I.M. says your truck worked steadily for four hours you can depend on it that it did. If TETCO T.I.M. says your truck idled from 10 A. M. to 2 P.M. you can be sure that that's what it did. If you want to know what your trucks are doing—and when—put TETCO T.I.M. on the job. TETCO T.I.M. will give you an exact check on truck operation.

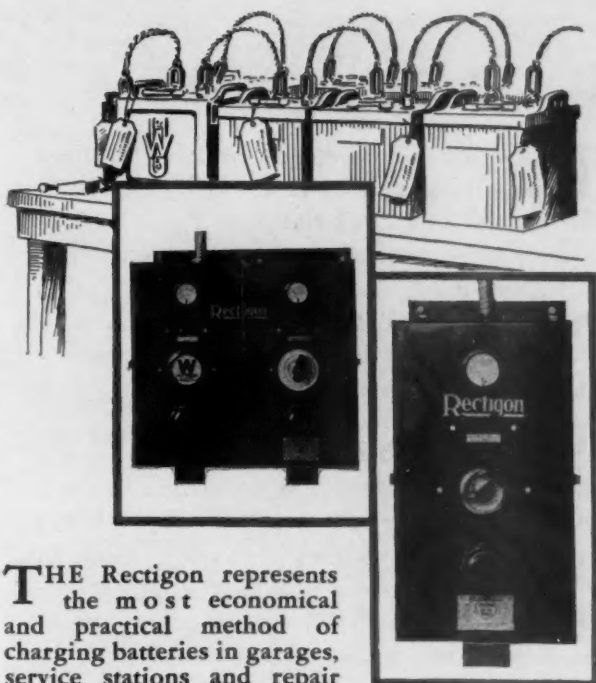
TETCO T.I.M. gives you a definite check on long trips. This seven day recorder automatically changes from day to day, keeping daily records intact until the chart is changed. Think of the advantages of 7-day recording. Easier comparison of daily operation—seven days' record clearly outlined on one chart instead of seven. Chart changed once a week instead of daily, effecting a saving in time as well as reducing cost of charts.

No mechanical or electrical connections. A steel stylus operating on a waxed chart does away with old-fashioned pen and ink. Slow and fast adjustments can be made. Visible clock dial gives driver a time piece and removes his antagonism for ordinary recorders.

Distributors are now being appointed. If you are interested in the sales franchise on TETCO T.I.M. in your territory write us at once.

The Electric Tachometer Corporation
 BROAD AND SPRING GARDEN STREETS
 Philadelphia Penna.

for VARIABLE Service Demands



THE Rectigon represents the most economical and practical method of charging batteries in garages, service stations and repair shops, especially where the number of batteries to be charged is variable.

To obtain the proper current for the number of batteries to be charged, it is merely necessary to turn the dial switch after the toggle switch has been set. The toggle switch when thrown to the left, adjusts the outfit for charging from 1 to 8 batteries; when thrown to the right, current is available for charging from 8 to 15 batteries.

The batteries cannot discharge in case of line failure. When line voltage is restored, the outfit will resume operation automatically. Ask for complete information and copy of free booklet "More Power to the Battery".

Rectigons are made in three sizes, 6, 15, and 30-battery capacity at \$45, \$75 and \$135 each, respectively.

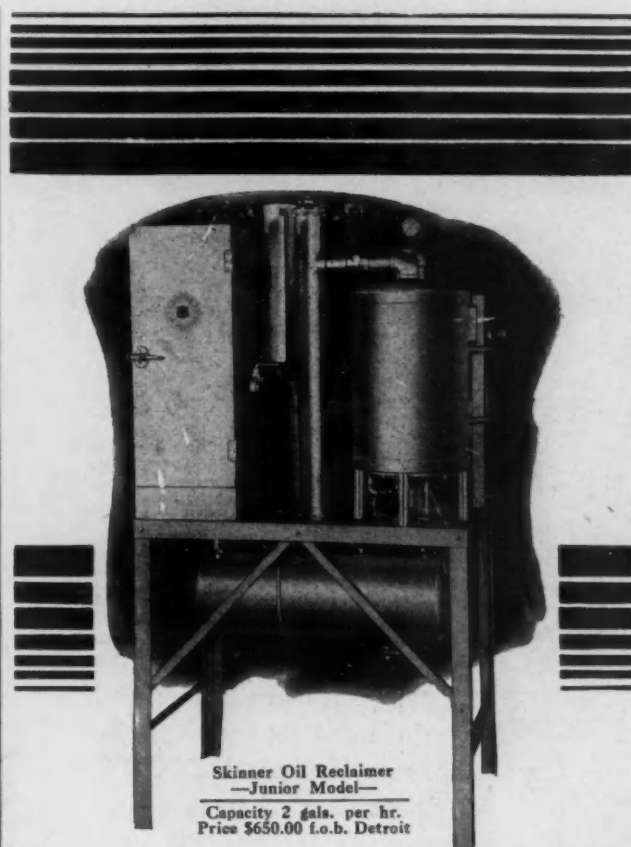
Use only genuine Westinghouse Bulbs for replacement.

Westinghouse

T 31108-B



The Commercial Car Journal
and Operation & Maintenance



Skinner Oil Reclaimer
—Junior Model—
Capacity 2 gals. per hr.
Price \$650.00 f.o.b. Detroit

... Truck Dealers
are showing
TRUCK OWNERS
how Reclaimed Oil saves
50% of Oil Costs

Oil economy is important. Fleet owners consider it so as evidenced by the impressive number of large and small fleet operators who are every day reclaiming their oil. High grade oil at 8c per gallon would interest anyone.

The Truck Dealer who anticipates the leadings of the Truck Market and its turn to operation economies will sell trucks—because he is looking ahead—seeing more than today's profit alone; because he is a real merchandiser. When you sell—talk Oil Reclaiming and Skinner Oil Reclaimers.

Our nearest Distributor will work with you. There is profit in it for you. Write us at once.

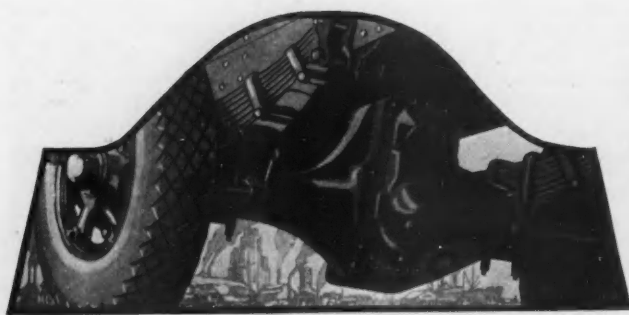
SKINNER AUTOMOTIVE DEVICE CO., INC.

2231 Dalzelle, Cor. Fourteenth

DETROIT, MICHIGAN

Skinner Oil Reclaimers

April, 1930



Heavy Duty Parts Need Dixon's Double Protection!



The steady grind on truck transmissions and differentials requires the double protection of DIXON'S 677. With its film of grease and film of graphite, DIXON'S provides a super lubricant to much abused truck parts.

By using this 100% lubricant, you are assuring yourself of more constant truck operation with a minimum of transmission and differential breakdown.

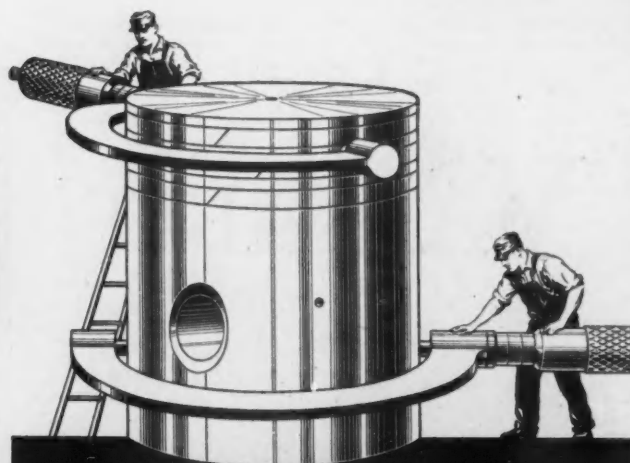
DIXON'S 677 is a fine mixture of the well known DIXON'S flake graphite with high quality grease, to form a heavy duty lubricant of great efficiency. Give DIXON'S a trial. Its performance overcomes any doubts. Send for Dealer Deal No. 112-G.

Joseph Dixon Crucible Co.
Jersey City, New Jersey

DIXON'S 677

Graphited Grease

April, 1930



Skirts Must Fit Too!

TRUCK and bus operators watch operating costs and are never tempted by makeshift methods of motor repairing.

Only a permanent cure saves money. Only a thorough reconditioning protects the vehicles from costly breakdowns on their routes.

Fitting only the upper part of the piston by putting in new piston rings will not cure poor compression.

The skirt must fit too. If badly worn, the piston will slap. Power leaks and other troubles will soon return. Play safe—replace the pistons and pins as well as the piston rings!

Arrow Head Pistons and Pins will make the job a quick one. Their accuracy minimizes machining and other operations. When ordered in balanced, sized units, they eliminate "miking," try-fitting, and 18 other costly steps. Take advantage of these savings to cut maintenance costs to a minimum. Order Arrow Head Pistons and Pins from the nearest Arrow Head distributor today.



3 regional plants to serve you
BUFFALO—CHICAGO—MINNEAPOLIS
Supported by a national chain of service
warehouses

Quick service on the
5,000 most-called-for
fits and applications,
including practically
"all motors, all years,
all models."

ARROW HEAD STEEL PRODUCTS COMPANY
Chicago MINNEAPOLIS, MINN. New York
Atlanta Boston Buffalo Dallas
Kansas City Los Angeles San Francisco
Canadian Warehouse: 277 William St., Chatham, Ontario
JOBBER'S STOCKS IN ALL LEADING CITIES

Arrow Head

Pistons Fitted With Pins

The Commercial Car Journal
and Operation & Maintenance

No More Searching Parties— for Wrenches to Handle the Job!



OBSTRUCTION
SET 2040



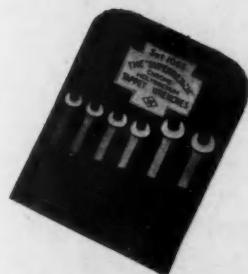
ELECTRICAL
SET 1120



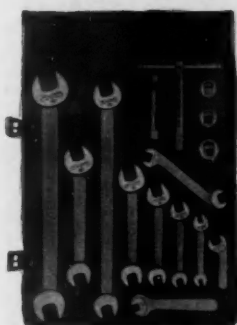
SERVICE SET 1025



DUOHEX-BOX
SET 8187



TAPPET SET 1063



BRAKE SET 1950

BACK up your service with *complete* "Superrench" helpfulness. No more rummaging about the shop for wrenches to handle the job at hand. No more fumbling work with wrenches not suited to the part. For modern brake service — tappet adjustments — work in close quarters—for every automotive job, there's a SET of "Superrenches" that simplifies the work. You'll have fewer wasted minutes on your payroll.

No other manufacturer offers you so complete a line of break-proof wrenches. Each is made for its particular job. Each is light and thin. But *strong*! When a "Superrench" takes hold, the nut moves — or the bolt breaks.

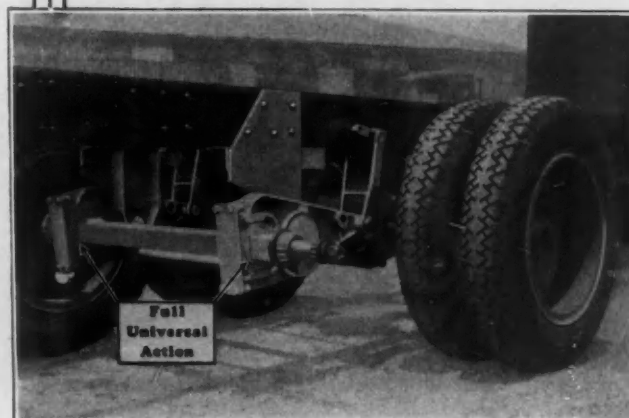
*Every "Superrench" is
Guaranteed
Against Breakage*

WILLIAMS
"SUPERRENCH"
(Chrome-Molybdenum)
SETS

J. H. WILLIAMS & CO.

"The Wrench People"

New York BUFFALO Chicago



AND STILL LEADING THE FIELD!

UTILITY 6-Wheel Attachments convert standard 4-wheel trucks to efficient 6-wheelers . . . with increased payloads, greatly reduced ton-mile costs, smaller investment for given truck capacity, and highway maintenance costs and congestion reduced to a minimum . . .

Thousands are giving satisfaction on fleets of industrial and transportation leaders throughout the country . . .

The UTILITY 6-Wheel Attachment is the *only* equipment engineered for universal application to all trucks—except light-duty Ford and Chevrolet class—which is nationally distributed and nationally recognized . . .

Write nearest distributor for the \$-saving folder *Double Truck Payloads* sent without charge or obligation!

Utility Trailer Manufacturing Co.

Box 206 • Arcade Station
Los Angeles, California

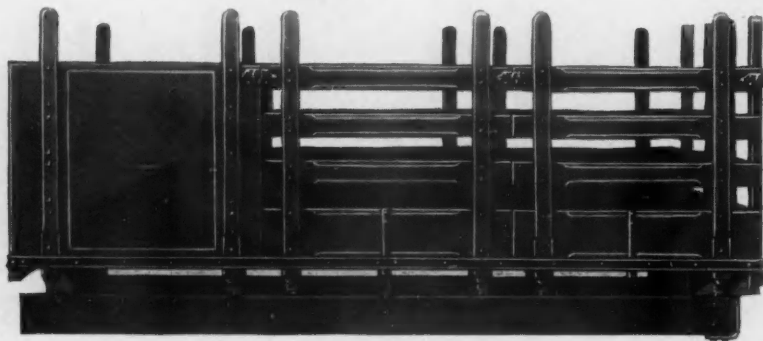
UTILITY 6-Wheel Attachments

Nationally Distributed by:

Boston	Perin-Walsh Company	Houston	Sabco Sales Co.
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HERCULES

Better Business Bodies



Hercules Better Business Bodies are built in a wide range of body styles consisting of Panel, Stake, Express, Stock, Grain and Dump Bodies, also a Closed Cab suitable for merchants in all lines of business and are sold through a chain of Hercules Distributors in all principal cities.

Now available! The new Hercules 1930 catalog—get your copy today from the nearest Hercules distributor or write the factory direct!

HERCULES PRODUCTS, INC.

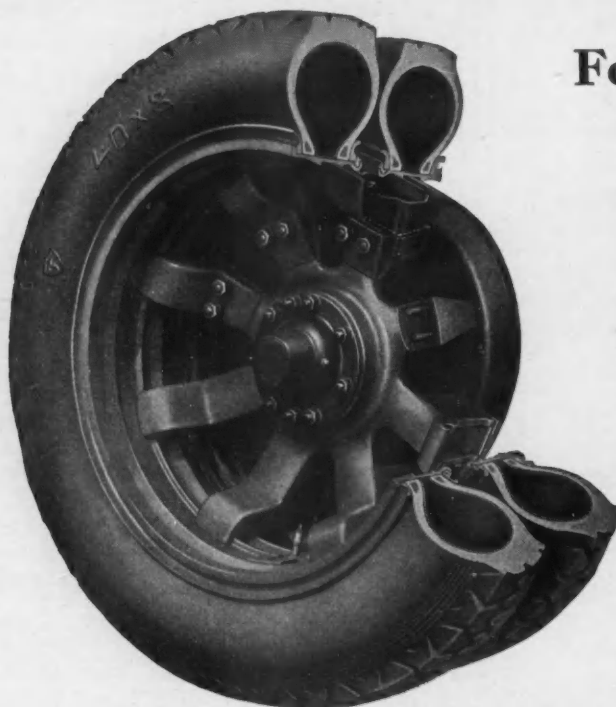
Factories—East Windsor, Ont., Canada

EVANSVILLE

INDIANA

U. S. A.

HOOPES WHEELS



For Single and Dual Pneumatic Tires

Hoopes-Parker Wheels—A spider type of wheel with hub cast integral for use on trucks and buses.

Both brakes and tires of the dual wheels are cooled owing to the free circulation of air fanned by specially constructed spokes.

Tires run perfectly true. Rims carrying both inside and outside tires can be easily and quickly mounted or removed from the wheel.

Light in weight—The cost is surprisingly low.

Manufacturers also of Hoopes Wood Spoke Metal Felloe Wheels for Use with Solid Tires

1867

April, 1930

Hoopes, Bro. & Darlington, Inc.

WEST CHESTER, PA.

1930

*The Commercial Car Journal
and Operation & Maintenance*

Fisher-Standard



Bodies and Chasses built complete
in our own factory

Standard MOTOR
TRUCKS

WE INVITE COMPARISON

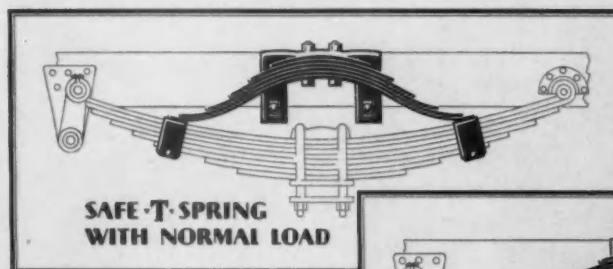
STANDARD MOTOR TRUCK COMPANY

DETROIT, MICHIGAN, U. S. A.

ALBERT FISHER, President

CABLECODE: STANTRUCK

You can't stop the rain . . . but you can carry an umbrella
TRUCKS WILL ALWAYS BE OVERLOADED



Note are of main spring.
Safe-T-Spring leaves it
to function normally
under light loads. No
addition to the unsprung
weight!

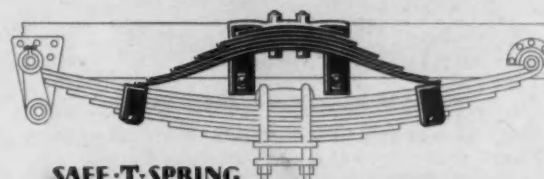
Study are of spring here.
Safe-T-Spring has ab-
sorbed the excess stress.
The extra load is pay-
ing the profit.

but

TRAINOR.

SAFE-T-SPRINGS

will prevent
Spring
Breakage

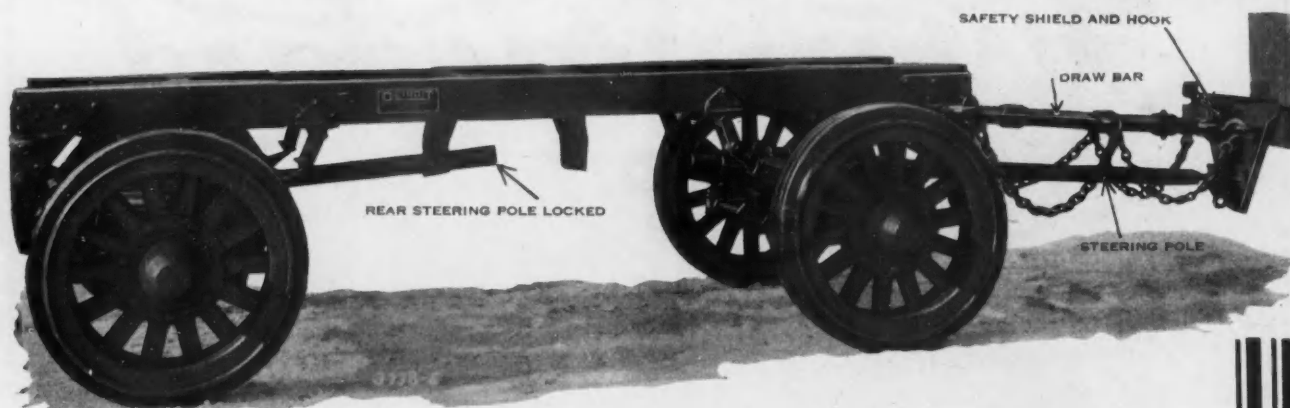


You can't stop drivers from overloading your trucks . . . or springs from breaking from overload but you can install a set of Trainor Safe-T-Springs which absorb the overload and prevent spring breakage.

You can safely carry that extra load at an added profit that will pay for the Safe-T-Spring in very few hauls . . . then you can profit from the extra income. Payloads increase and repairs and tied-up trucks decrease. Write for details and prices with performance records.

TRAINOR NATIONAL SPRING CO. . . NEWCASTLE, IND.

DETROIT 4-WHEEL TRAILERS



DETROIT 4-Wheel Trailers embody the principles of live or knuckle type axles with four point suspension.

In comparing them to other types, we *maintain and guarantee*:

That with equal pay load, the Model K Detroit will have a *lower gross weight*, and that it will carry *more pay load* and not have any greater gross weight;

That the Drawbar pull will be materially less;

That the *saving in gasoline* will be more than noticeable;

That it will *not sway*, either when new or old;

That it will *run true*, even when pulled by chains only;

That with our safety shield, draw bar and steering pole arrangement, it can be coupled to a truck with greater safety and that it can be handled with the greatest degree of safety when being backed, turned or steered with the rear wheels—and require less labor;

That *less power* is required to draw a DETROIT—and that there are less wearing and operating costs.

For further information on DETROIT Trailers, write direct.

DETROIT TRAILER and MACHINE COMPANY

481 Beaufait Ave., Detroit, Michigan

“This Side Dump Body Sells on its Merits”



GATE MODEL No. 2FG1

Has removable gates, the side ones being hinged at the top and swing out at the bottom, so that no stones or grit can get into the hinges and cause damage. They unlock and lock automatically as the body is dumped, or brought back to normal position.

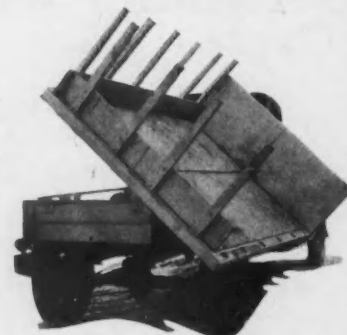
Best Side Dump Bodies are made of steel throughout, electric welded, hand operated by positive non-slipping worm gear. Of rugged, and simple construction, with all parts readily accessible.

The dumping angle to either side is 45 degrees, and loads are dumped clear of chassis and wheels. Easily mounted by affixing four “U” bolts.

Write for Catalog “C”

BEST BODY CORPORATION

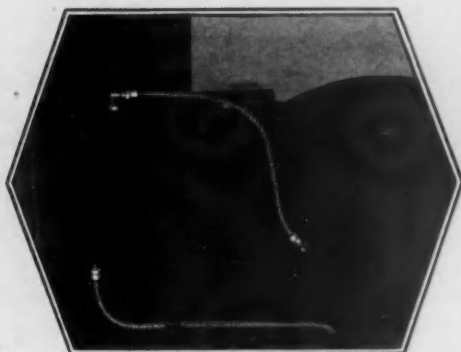
COATESVILLE, PA., U.S.A.



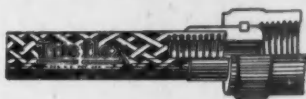
COMBINATION STAKE MODEL No. 2FS1

The best combination for general use. The hardwood stake sections are all interchangeable. The dumping movement in both models is the same in speed, and smooth and easy operation. There is no flopping over of the body.

TIGHT—FLEXIBLE



*Complete catalog
upon request*



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and Oil Lines Need Never
Fail — Titeflex Lines don't*

Vibration, road shock, and the movement of fixed chassis units, cause solid fuel lines to crystallize and break. Titeflex flexible fuel lines absorb vibration . . . never crystallize . . . never break. They are all-metal with no rubber or fabric used to make them tight . . . being flexible they are easy to install . . . with fittings attached they are a complete replacement unit. Titeflex fuel lines proved by 12 years of satisfactory service.

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REGISTERED U.S. PAT. OFF.

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Auto Wreckers—House Movers—Transfer Companies—Contractors—Machinery Handlers—Oil Field Haulers—Quarries—Industrial Plants—Truck Fleet Owners—Telephone and Power Companies

And many others are large users of motor truck winches.

Reach this vast market by selling your trucks complete with Bay City Winches which are built in types and capacities to meet every requirement.

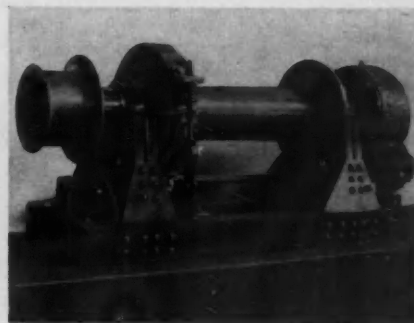
WE ARE EXCLUSIVE MANUFACTURERS OF MULTIPLE-SPEED POWER-TAKE-OFFS GIVING OUR WINCHES ENTIRE RANGE OF THE TRUCK TRANSMISSION WHICH MAKES POSSIBLE SMOOTH PERFORMANCE AT ANY SPEED.

ALSO BAY CITY WINCH LINE TENSION INDICATORS WHICH ARE STANDARD EQUIPMENT WITH MANY OF THE LEADING TELEPHONE AND POWER COMPANIES.

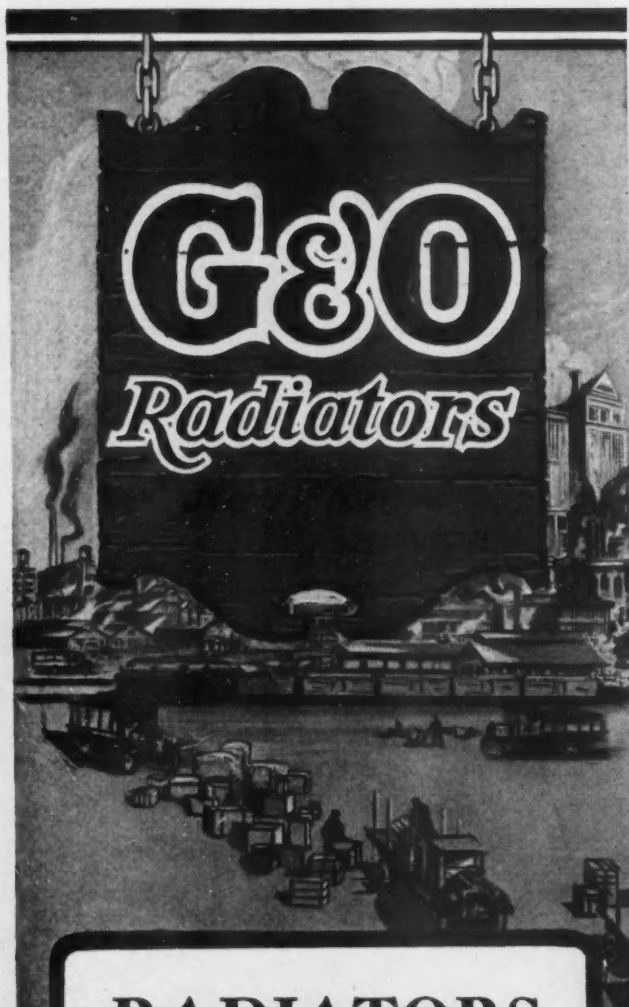
(OUR IMPROVED CONNECTIONS MAKE INSTALLATION EASY)

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Bay City Michigan



Bay City "A-1" All Steel Winch



RADIATORS

for

Commercial Vehicles

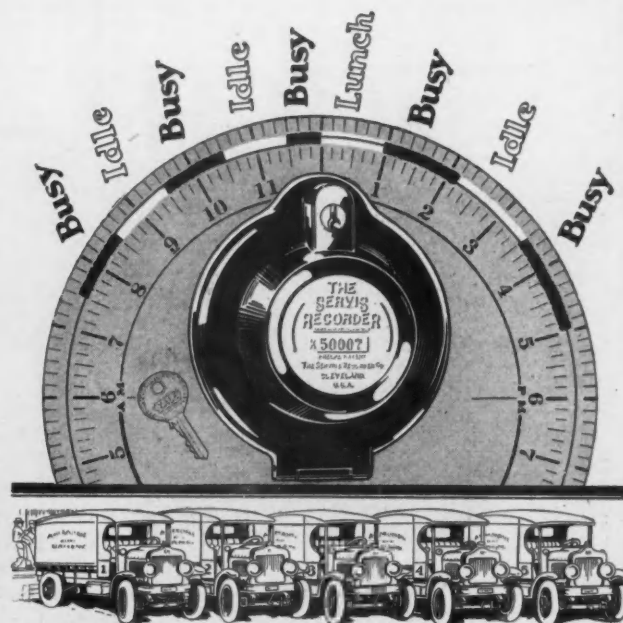
SPECIALIZING for 15 years in the design and manufacture of radiators for commercial vehicles, The G & O Manufacturing Co. occupies a preeminent position in this industry. Every type of heavy-duty radiator is obtainable. Manufacturers and fleet owners are requested to write for complete information regarding G & O Radiators.

The G & O Manufacturing Co.

Radiator Manufacturers Since 1915

New Haven

Conn.



KEEPING MOTOR TRUCKS BUSY

That's Been Our Business for the Last 18 Years!

And this is how we do it.

We give you a "picture" of the work of your truck for the past 24 hours. Busy time is recorded automatically on a chart. The chart is inside the little Servis Recorder, and the Servis Recorder, by the way, is attached to any truck merely by a couple of ordinary screws.

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This reputation is as pridefully and zealously maintained today as it was years ago.

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THE LIFE OF THE TRUCK
depends on the DRIVER
THE HEALTH of the DRIVER
depends on the seat



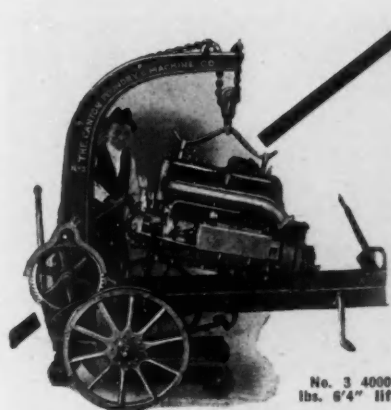
*This seat is mounted
on our adjustable AIR
SPRING BASE.*

ROAD SHOCKS are
ABSORBED
in the
SEAT BASE

PRICES
on request

No jar on the spine.
No friction on your back.
No wrinkled or worn clothes.
No body fatigue—you ride on air.
(Gas Tanks on Modern Trucks are hung on the side)

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533-539 Totowa Ave. Paterson, N. J.



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LIFTING
IS PLAY
TO A
CANTON

No. 3 4000
lbs. 6'4" lift.

To lift the heaviest engine or chassis part is mere play to a CANTON CRANE. No job is too large or hard for a CANTON! They eat up hard work. Too, you need less labor with a CANTON and—you do more work—you do it cheaply—and you do it RIGHT! Have a CANTON CRANE in your shop—you can suspend your load at any point, and do it safely. CANTON CRANES are made in fifteen sizes. Send for our catalog.

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FOUNDRY & MACHINE CO.
Canton Ohio

Manufacturers of Universal auto turn-
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shears.

New York Office, 101 W. 31st St.
CANTON CRANES

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MOR-
SPEED



SPEED
ENDURANCE
MOR-
POWER

In the forest the deer depends upon speed for defense. As the deer is symbolic of speed, MOR-POWER Piston Rings mean more speed—MOR-POWER to any motor in which they are installed.

MOR-POWER Rings are made in the heart of the industry and to motor car builder's original specifications, in a plant specializing in ring construction.

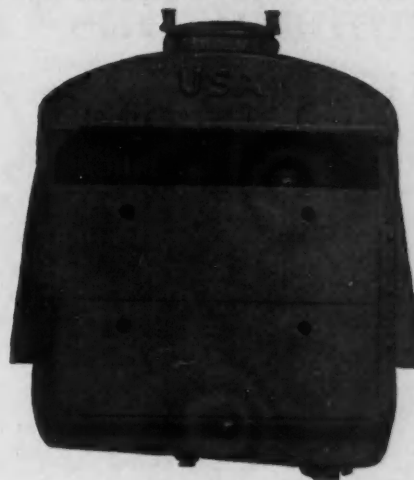
Standard on Ford, Lincoln and many other well-known makes of cars.

Greater speed—Mor-Power—longer life—mean satisfied customers.

Insist upon MOR-POWER Rings—at your jobber.

SUPERIOR
PISTON RING CO., INC.

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U.S. ARMY

Here is the Young radiator built for U. S. Gov't army trucks. Young manufacturing standards need not be moved up to meet stringent requirements—they were set at that point from the first. In a wide range of service and uses you find Young equipment performing steadily, dependably, and with satisfaction to us as well as the user.

Young Radiators


YOUNG RADIATOR COMPANY, Racine, Wis.

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S. CLYDE KYLE, Pac. Coast Representative, Rialto Bldg., San Francisco, Cal.

April, 1930

**SPECIALLY
DESIGNED FOR
HEAVY DUTY
SERVICE**



VICTOR
MADE IN U.S.A.
GASKETS

The World's
Standard Gasket

VICTOR MFG. & GASKET CO.
5750 Roosevelt Road Chicago
WORLD'S LARGEST GASKET MANUFACTURER

Pneumatic Bus Tires

Now required by Illinois Law

THE legislature of the State of Illinois recently passed the "Rategan Bill" which provides that all buses operating in the state, on and after July 1, 1930, must be equipped with pneumatic tires. In commenting on the new statute, the Chicago Tribune says: "... it appears that the money saving found in lower first cost installation of solid tires is overcome by the damage to vehicles caused by the resulting racking and impacts."



Send for this Free Miller Book

Every truck or bus operator should have the valuable tire data contained in this new book by Miller. It tells how to determine loads—select the right tire—and make tires pay. Send coupon today for your free copy.

The Miller Rubber Company of N. Y.,
Commercial Sales Dept., Akron, Ohio.

Please send me your new data book on Pneumatic
Truck and Bus Tires.

Name.....

Street.....

City.....

April, 1930

INCREASE SALES VOLUME SECURE REPEAT ORDERS

A progressive dealer is not only attracted by a handsome profit to sell dump body equipment, but also by the minimum amount of servicing to keep the bodies on the job. Often an enticing margin is completely consumed by service charges. Consequently, this is not so profitable.

Galion Allsteel Dump Bodies are beyond the experimental stages. They serve efficiently and indefinitely. Sell them to your customers—repeat orders will follow. Get the facts for your 1930 program.

WRITE FOR FACTS

THE GALION ALLSTEEL BODY CO.
Box 5, GALION, OHIO

GALION
ALLSTEEL BODIES



They Are Testing Your Motor Truck

Beauty of design and engineering figures drive the car out of your sales room. Only the perfect functioning of all important parts can keep it out of the shop.

In these days of high speeds through traffic the operation of the clutches assumes growing importance. B. C. A. Bearings are especially designed for this service. In the inspection room shown above they are rigidly inspected and tested to insure the proper operation of the cars you sell in the ultimate trial of service on the road.

Bearings Company of America
Lancaster, Pa.

Detroit, Mich. Office: 1012 Ford Bldg.



The Commercial Car Journal
and Operation & Maintenance

**If your solid tired trucks
run faster than
8 miles per hour**

*Here's a way
to save money*



When it was found that solid tires could not stand the gaff much over 8 miles per hour and come through with a clean record for economy, Kay Steel Wheels were created as the solution to this problem.

Mounted with pneumatic tires, Kay Wheels can be easily installed on any truck . . . there is a design for every make and model on the road.

By this method you are saved the loss of trading-in present equipment before full wear is gotten from it. And Kay Wheels save money for you every day by increasing the running distance and by reducing the fuel cost per mile.

Write for Bulletin A which gives complete details.

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2721 Elm St., Los Angeles, California

P. O. Box 235

620 So. Delaware Ave.,
Philadelphia, Penna.

2540 So. Wabash Ave.,
Chicago, Ill.

826 Clark Ave.,
St. Louis, Mo.

HUG

Model 98



Commercial Tractor

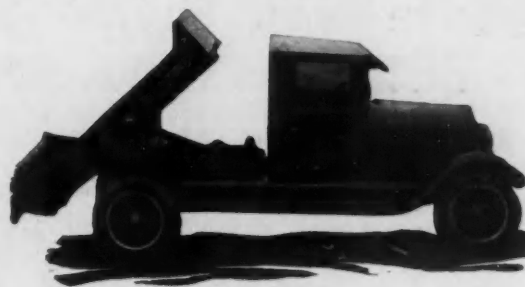
IN keeping with the increasing demand for Heavy Duty Tractor Trucks, Hug has designed a Commercial Tractor, a tractor with auxiliary six wheel unit attachment that will handle 10 tons on the chassis and 10 tons on the trailer, a 40,000 pound pay load.

This new Hug Giant will travel the highways at high speed and has unlimited power for the heavy pull. Unusual sturdiness has been attained by specialized Hug heavy duty construction. Complete details furnished on request.

Desirable territories open to responsible distributors.

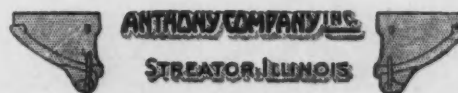
THE HUG CO. Highland, Illinois

*The Commercial Car Journal
and Operation & Maintenance*

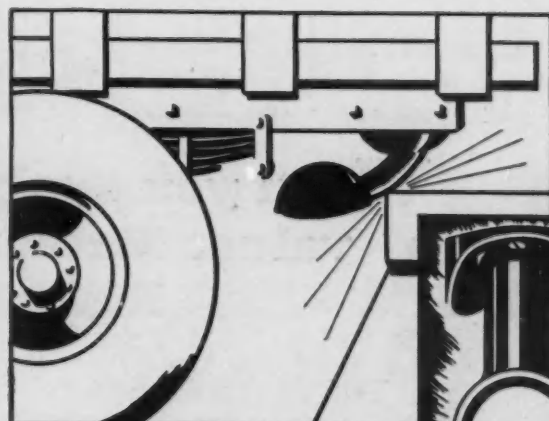


Anthony Rotating Power Hoist Dump Body

Right in line with gravity body prices. Increase the earning power of every truck. Fast, powerful, sturdy, thoroughly tested and proven. Write for prices and literature. Every fleet owner and truck dealer should have this information.



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UNBREAKABLE TAIL LAMP

GUARANTEED

Unbreakable—Made of rubber, bends instead of breaking.

Water Proof—Rubber is the best insulation, also proof against water.

Bright Light—Due to special unbreakable lens.

Vibration—No effect on electric bulb because it is hung loose in lamp, is surrounded by rubber and cushioned by a light spring. **Price \$5.00**

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PATENTED

CHAMPION RUBBER LAMP CO., INC., 236 W. 55th, New York City



April, 1930

Have you investigated this BETTER LUBRICANT

It's the greatest of all lubricants for transmissions and differentials. GearO is *guaranteed to lubricate continuously*. It adheres to all working parts with exceptional cohesive and adhesive properties. And of special interest to you . . . it *lubricates at all operating temperatures*. Used and recommended by such leaders as, The Mack International Motors Company,

AMERICAN GEARO

Graham-Paige, Pierce-Arrow, Salisbury Axle, Timken Roller Bearing Company and others. Special attention will be given your inquiry.

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DETROIT CHICAGO

MADE FOR USE IN:

Hypoid Gears
Multi Speed Gears
Four Speed Gears
Silent Second Gears
Spiral Bevel Gears
Worm Drive Gears

The improved lubricant for all transmissions and differentials—new or old.

WRITE FOR DETAILS AND OTHER INTERESTING INFORMATION

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MACHINE COMPANY



ALLEGAN, MICH.

The universals on a Blood shaft need hardly half the attention other joints do, and years will necessitate the replacement of but a few simple parts.
Member of Motor Truck Industries, Inc., of America



**When you apply the mathematics
of value, Mather Springs are the
logical choice.**

THE MATHER SPRING COMPANY, TOLEDO, OHIO

Manufacturers of Scientifically Heat Treated Automobile Springs

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Commercial Car Journal and Operation & Maintenance Standard Cost System. A simple, convenient and inexpensive method of keeping close tabs on trucks and drivers. It costs only \$9.50 for 500 Driver's Cards, 60 Monthly Summary Sheets, 1 Complete Instruction Book, 1 Binder.



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Chilton Class Journal Company

Chestnut and 56th Sts.

Philadelphia

Give your trucks more Capacity...

and Reliability... with Erie Wheels
and Ermalite Cast Brake Drums

WITH Erie Wheels, the users of trucks and buses have added Capacity, Convenience, and better Reliability. More accurate aligning of tires — easier dismounting — better cooled drums, etc.



Adv.
136

Developed and consistently improved by the pioneer makers of spoke-type duals.

Erie Wheels with Ermalite cast Brake Drums attached, can be furnished for some axles.

Write us—

Dept. C

ERIE MALLEABLE IRON CO.
Automotive Wheel Division
Erie, Penna., U.S.A.



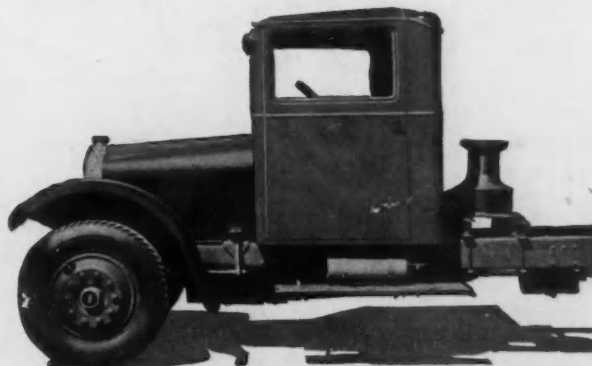
"The Wheel of Today—and Tomorrow."

The Choice of the Big Operators

It's a case of performance and not price with these men who watch every penny. That's why you find so many of them specifying Highland Cabs on their trucks.

Highland Cabs are built to withstand the punishment of hard usage. That means low operating costs. More, they look to the comfort of the driver. That means more work done. Of course every Highland Cab has the Rocker Sill Mounting, originated by Highland.

Stack a Highland Cab against any other cab on the market. You'll choose the Highland every time. Inspect these better cabs at your distributor's or write us for more information.



THE HIGHLAND BODY MFG. CO.

403 ELMWOOD PLACE, CINCINNATI, OHIO

HIGHLAND

FOR CABS

Greater Economies and greater earnings because of compressed air equipment

More and more commercial car dealers are finding their service and maintenance costs greatly reduced through the use of compressed air equipment for car washing and other up-keep service. Anyone will find similar economies with Curtis.

Compressed Air Car Washers which supply a complete service—vacuum cleaning, spray painting, operates pneumatic tools, air for tire inflation in addition to car washing.

Curtis is the pioneer builder of power car-washing equipment; is the only manufacturer producing both compressed air and hydraulic types, and therefore is in a position to advise without bias.

Information about Curtis Service Station Equipment

Tear out and mail. Write your name and address on margin. Check equipment in which you are particularly interested.



Curtis Paint Spray Compressor, 1/4 to 5 H. P. single or two stage, centrifugal oiling, Timken bearings.



Curtis Hydraulic Washer. Low priced, self-contained. New slow speed pump fully enclosed self oiling. One and two gun sizes.



Curtis Rotating Lift. Safe for you and car. Oillocked. No pits, no recesses. Roll-on or free-wheel type.



Curtis Compressed Air Washer, gives complete cleaning service, operates pneumatic tools, furnishes air for tires. Duplex Timken bearing compressor.

CURTIS

CURTIS Pneumatic Machinery Company
St. Louis

1929 Kienlen Ave., St. Louis, Mo., 518-H Hudson Terminal, New York City

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Veeder-ROOT

HUB ODOMETERS

COST CONTROL

Record the mileage by which to measure the performance of your trucks; the efficiency of your drivers. Show your costs-per-mile for supplies and maintenance; give you control of operating-cost by a quick check on wasteful operating. Regular model, adaptable to all standard trucks, \$20 list. For Model A FORDS, complete with threaded hub for attaching, \$21. Ask for informative circulars.

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HARTFORD, CONN.

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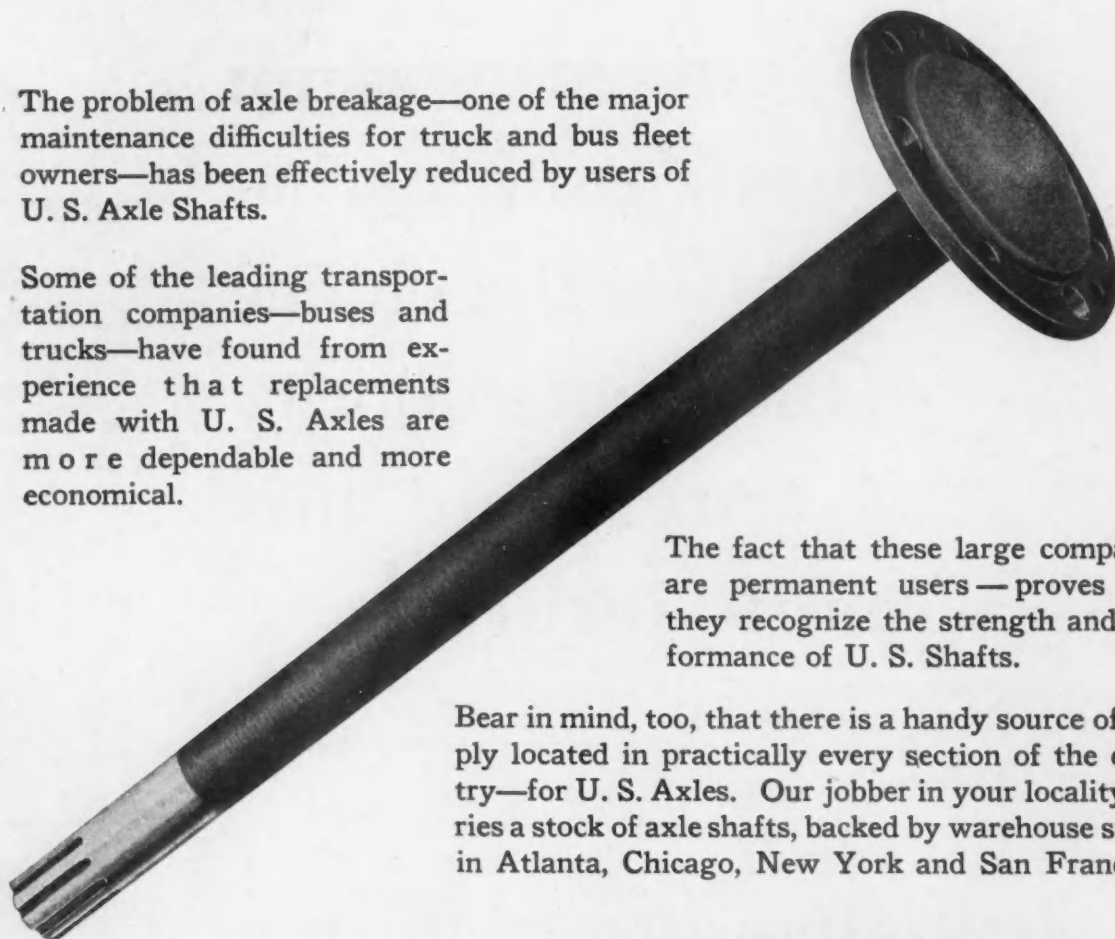
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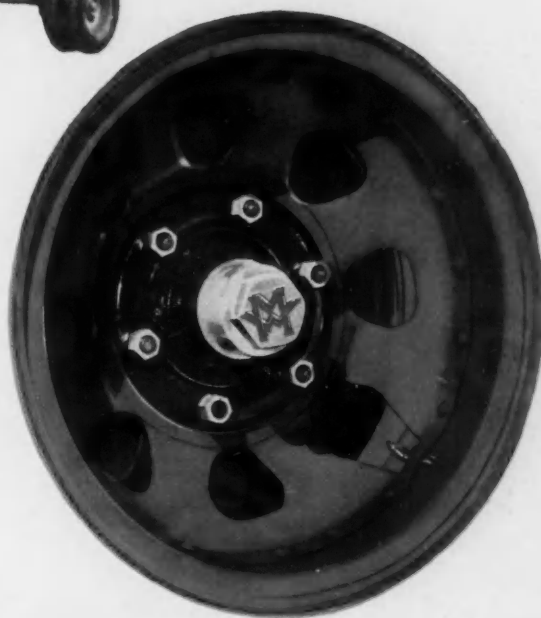
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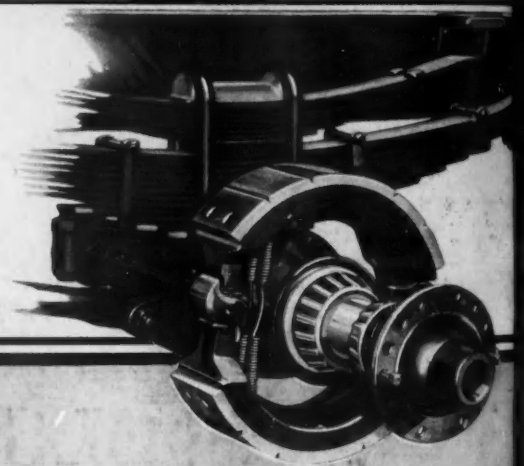
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BIG
SIX

(MODEL 4C6AD)



with
Westinghouse
4 Wheel Air Brakes
(Standard Equipment)

*Extra Heavy Frame with 14½" Fish Plates -
90 h.p. 6 Cyl. Engine - Dual Ignition -
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1½ Ton	6 Cylinder	1525.00
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standard chassis only

*Westinghouse Air Brakes
standard equipment

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omy, increased horsepower and extreme reliability.

The 13-inch single plate clutch, larger than usual in a truck of this capacity, will stand the severest usage. Cam and lever steering with a 20 to 1 reduction provides remarkable ease of handling.

There is a 7-speed transmission with an extremely low first (approximately 9 to 1) and an over-drive that provides a 28% step-up in speed when conditions warrant.

Wheelbase lengths range from 144 to 231 inches. The extra heavy frame, reinforced by 14½-inch fish plates, adds not only to strength, but to the distinguished appearance of this truly outstanding Federal.

(335)

FEDERAL

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DETROIT, MICHIGAN